UNITED REPUBLIC OF TANZANIA

COUNTRY PROFILE

**IMPLEMENTATION OF AGENDA 21:
REVIEW OF PROGRESS MADE SINCE THE
UNITED NATIONS CONFERENCE ON
ENVIRONMENT AND DEVELOPMENT, 1992**

**Information Provided by the Government of UNITED REPUBLIC OF TANZANIA to the United Nations Commission on Sustainable Development
Fifth Session
7-25 April 1997
New York**

*United Nations Department for Policy Coordination and Sustainable Development
Division for Sustainable Development
The Information contained in this Country Profile is also available on the World Wide Web, as follows:
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E/CN.17/1997/MISC.84
97-22478

UNITED REPUBLIC OF TANZANIA

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Note from the Secretariat: An effort has been made to present all country profiles within a common format, with an equal number of pages. However, where Governments have not provided information for the tables appended to Chapters 4 and 17, those tables have been omitted entirely in order to reduce the overall length of the profile and save paper. Consequently, there may be some minor inconsistencies among the formats of the different country profiles.

All statistics are rendered as provided by the respective Governments.

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(*) The original report was provided in a format that varies from the standard format. An attempt has been made by this Secretariat to place all available information into the format addopted for the CSD.

ACRONYMS

APELL	Awareness and Preparedness for Emergencies at Local Level
CFC	chlorofluorocarbon
CGIAR	Consultative Group on International Agriculture Research
CILSS	Permanent Inter-State Committee on Drought Control in the Sahel
EEZ	exclusive economic zone
ECA	Economic Commission for Africa
ECE	Economic Commission for Europe
ECLAC	Economic Commission for Latin America and the Caribbean
ELCI	Environmental Liaison Centre International
EMINWA	environmentally sound management of inland water
ESCAP	Economic and Social Commission for Asia and the Pacific
ESCWA	Economic and Social Commission for Western Asia
FAO	Food and Agriculture Organization of the United Nations
GATT	General Agreement on Tariffs and Trade
GAW	Global Atmosphere Watch (WMO)
GEF	Global Environment Facility
GEMS	Global Environmental Monitoring System (UNEP)
GEMS/WATER	Global Water Quality Monitoring Programme
GESAMP	Joint Group of Experts on the Scientific Aspects of Marine Pollution
GIPME	Global Investigation of Pollution in Marine Environment (UNESCO)
GIS	Geographical Information System
GLOBE	Global Legislators Organisation for a Balanced Environment
GOS	Global Observing System (WMO/WWW)
GRID	Global Resource Information Database
GSP	generalized system of preferences
HIV	human immunodeficiency virus
IAEA	International Atomic Energy Agency
IAP-WASAD	International Action Programme on Water and Sustainable Agricultural Development
IARC	International Agency for Research on Cancer
IBSRAM	International Board of Soil Resources and Management
ICCA	International Council of Chemical Associations
ICES	International Council for the Exploration of the Sea
ICPIC	International Cleaner Production Information Clearing House
ICSC	International Civil Service Commission
ICSU	International Council of Scientific Unions
IEEA	Integrated environmental and economic accounting
IFAD	International Fund for Agricultural Development
IGADD	Intergovernmental Authority for Drought and Development
IGBP	International Geosphere-Biosphere Programme (ICSU)
IGBP/START	International Geosphere-Biosphere Programme/Global Change System for Analysis Research and Training
ILO	International Labour Organisation
IMF	International Monetary Fund
IMO	International Maritime Organization
INFOTERRA	International Environment Information system (UNEP)
IOC	Intergovernmental Oceanographic Commission
IPCC	Intergovernmental Panel on Climate Change
IPCS	International Programme on Chemical Safety
IPM	integrated pest management
IRPTC	International Register of Potentially Toxic Chemicals
ITC	International Tin Council
ITTO	International Tropical Timber Organization

ACRONYMS (Cont'd)

IUCN	International Union for Conservation of Nature and Natural Resources
MARPOL	International Convention for the Prevention of Pollution from Ships
OECD	Organisation for Economic Cooperation and Development
PGRFA	plant genetic resources for agriculture
PIC	prior informed consent procedure
SADCC	South African Development Co-ordination Conference
SARD	sustainable agriculture and rural development
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNDRO	Office of the United Nations Disaster Relief Coordinator
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNU	United Nations University
WCP	World Climate Programme (WMO/UNEP/ICSU/UNESCO)
WFC	World Food Council
WHO	World Health Organization
WMO	World Meteorological Organization
WWF	World Wide Fund for Nature (also called World Wildlife Fund)
WWW	World Weather Watch (WMO)

OVERVIEW

In 1989, the General Assembly of the United Nations called for a global conference to devise strategies that would halt and reverse the negative impacts of anthropogenic activities on the environment and promote sustainable development. The United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, Brazil, 3-14 June, 1992 fulfilled the mandate given to it by the General Assembly by adopting Agenda 21, which is a programme of action for sustainable development into the 21st century. The Rio Declaration on Environment and Development; and First Principles, a non - legally binding authoritative statement of principle for a global consensus on the management, conservation and sustainable development of all types of forests.

Tanzania is aware of the inseparable relationship between economic development and the exploitation of natural resources. Our survival and that of future generations depends on our ability to manage our environment and its natural resources in such a way as to achieve growth and sustainable development. Sustainable development has therefore become a focal point as Tanzania endeavours to rid itself of poverty, ignorance, disease and other problems of underdevelopment.

This report presents an overview of Tanzania's response to its development problems and the extent to which this response has been guided by the principles embodied in Agenda 21 since UNCED.

Chapter 1 of the report is the introduction which covers the physiography of the country, the state of environment and general progress after Rio de Janeiro. Social and economic dimensions are covered in Chapter 2 which includes the structure of the economy, macroeconomic policies, environmental considerations in economic planning, combating poverty. protection and promoting human health and integration of environment and development in decision making. Chapter 3 is about population dynamics and sustainability. This chapter highlights population and poverty, population growth, population distribution, and population policy.

The inseparable link between technology, the environment and sustainable development is highlighted in Chapter 4. This chapter covers the role of technology in sustainable development, and more specifically highlights activities in the industry sector, energy sector, agriculture sector and discusses capacity building and training.

Conservation and management of natural resources is a key theme in sustainable development. In Chapter 5 we report on policies, programmes and activities in water resources, land, and forestry resources upon which the vast majority of people in Tanzania depend for their livelihood.

Chapter 6 addresses an issue of great concern to much of sub-Saharan Africa: the threat of desertification. We report on land degradation, its contributory factors and actions to remedy the situation.

Institutional arrangements for the integration of natural resource use and management are highlighted in Chapter 7. The important role of some of the major groups identified in Agenda 21 is highlighted in Chapter 8, while Chapter 9 is about legal instruments and mechanism and their role in the implementation by Tanzania of Agenda 21.

In the concluding remarks in Chapter 10, an overview is given of the constraints in the way of achieving sustainable development and challenges that lie ahead.

This is the first of regular reports and it is hoped, resource permitting, such reports will be issued annually with the primary objective of sharing experiences with other world nations as we search for sustainable solutions to our common concerns.

OVERVIEW (Cont'd)

The state of the environment

Six major categories of environmental problems in the country have been identified. These problems include:

i. land degradation;
ii. lack of accessible, good quality water;
iii. pollution;
iv. loss of wildlife habitats and biodiversity;
v. deterioration of aquatic systems; and
vi. deforestation

These problems impact negatively on the economy and well being of the people of Tanzania.

The processes of land degradation are varied and may not be easily detected or measured. Its severity can be gauged from the red-brown colour of streams and in floods as the vital top-soil is washed away from upland areas. In other areas silting of dams and reservoirs and the bareness of the top soil in many fields are a manifestation of land degradation. The productivity of soils has been considerably reduced in many parts of Tanzania.

Land degradation also results from the removal of woody vegetation especially when the rate of removal is higher than the rate of regeneration. Only 3.2 percent of Tanzania is covered by closed dense forests. The remainder of forests comprise mainly of miombo woodlands and large areas of thorn-bush. The need for more land for agriculture, increasing demand on fuelwood and charcoal, the demand for wood for tea drying and tobacco curing, and increased requirement of wood for rural and urban industries have created an unsustainable demand and supply situation.

Pollution problems in the country include urban pollution, industrial pollution, rural pollution arising from agriculture, mining pollution and coastal pollution. Urban pollution is caused by poor sanitation, inadequate solid waste disposal, poor domestic and industrial effluent discharge and treatment, poor disposal and lack of treatment of industrial wastes, and emissions from industries.

Environmental pollution in agriculture is mainly due to the use of agrochemicals, livestock drugs, and fertilizers. The pollution arises out of: improper handling and overuse of agrochemicals; the use of banned chemicals; improper disposal of chemical containers; chemical control of migratory pests; and control of weaver birds using toxic chemicals like fenthion.

Bioinvention is an emerging environmental threat in the agricultural sector posing a major challenge to sustainable agricultural management and production. The water *hyacinth (Eichloria crasipes)* invasion of Lake Victoria and a number of dams, river courses and reservoirs is a serious environmental problem. Bioinvention in agriculture is also manifested in the introduction from elsewhere of pests of the type of the large grain borer (*prostephanus tracuntus*), cassava green mite, cassava mearly bug and banana black sigatoka.

Aquatic resource for Tanzania include: marine and fresh water ecosystems, mangrove forests, coral reefs, seaweeds or grasses, wetlands, lakes and rivers. These resources provide the livelihood of a significant part of the population. They are also an important food source. They also contribute to the tourist industry. Concerns over aquatic resources in Tanzania arise because of such practices as environmentally destructive fishing using dynamite, excessive trawling, chemical poisoning, and use of small mesh size nets. The destruction of coral reefs which are critical habitats of marine organisms is a cause of great concern. Beach erosion, coastal pollution from oil spillage and sewage, and uncontrolled felling of mangroves are major environmental concerns.

The extensive national parks, 'the Eastern Arc' mountains, wetlands, coastal forests, marine and fresh water systems as outstanding reservoirs of plant and animal species make Tanzania one of the world's greatest reservoirs of wildlife and biodiversity. Statistics indicate that of the 10,000 plant species so far recorded, over a quarter are endemic. Tanzania is also home to 31 endemic species of amphibians, 18 endemic species of lizards, 9 species of snakes, 10 bird species, forty percent of the world's wild coffee varieties, and about 80% of the famous African violet flowers.

Tanzania is also a custodian of world heritage in the form of game reserves and national parks. The Selous Game Reserve, the Ngorongoro Crater and Serengeti National Park are World Heritage Sites. Lake Manyara National Park, the Ngorongoro Crate and Serengeti National Park have been designated as biosphere reserves. Land and natural resource use conflicts in buffer zones and poaching are major problems in this area.

(Cont'd)

Compared to many countries, Tanzania is endowed with large water bodies, many rivers and moderate to good rainfall. However, the rainfall is seasonal and during the dry season water is scarce. The quality of the water leaves a lot to be desired. Incidence of water-related diseases are very common. In rural areas people use untreated water and in urban areas the water is poorly treated and contamination by poorly treated industrial discharges and sewage is not uncommon.

Tanzania has for many years been host to refugees from neighboring countries. The border regions of Kigoma and Kagera have been severely affected by large concentrations of refugees from Rwanda, Burundi, and Zaire. Refugee-related environmental problems have had a negative impact on the quality of life of refugees and the host-population. Uncontrolled tree felling for firewood and construction, encroachment on arable agricultural land, pollution and overuse of water supplies, and poaching have seriously affected the ecosystems in Kigoma and Kagera. The government has documented the situation obtaining in the refugee-impacted areas. In addition the government has been working with the United Nations High Commissioner for Refugees (UNHCR) and other cooperating partners in order to mitigate the short term and long term impacts of the problem. Afforestation and reforestation as well as rehabilitation of infrastructure have been given priority. The government has also cooperated with the UNHCR in the drafting of environmental guidelines related to refugee situation.

General progress after Rio de Janeiro

During the 1992 United Nations Conference on the Environment and Development (UNCED) held in Rio de Janeiro, Tanzania, together with other countries made a declaration to abide by the principle of sustainable development based on the recognition that "the current generation should meet their needs without compromising the ability of future generations to meet their needs".

Tanzania has taken concerted efforts to alleviate environmental concerns with a view to achieving sustainable development. Although progress in many areas remains slow, the Government is nevertheless engaged in a major exercise aimed at formulating or reviewing national policies for the sectors. Thus, the Planning Commission under the President's Office is charged with national development planning and economic management. The main function of the Planning Commission is economic management and coordination of development activities including integration of environmental concerns in development planning. At the central and local government levels, there are several line ministries and government departments whose work is of relevance to environment and sustainable development.

There are also more than 100 non-governmental organizations (NGOs) and community based organizations (CBOs) which are involved in implementing programmes which relate to the environment and sustainable development. Academic institutions, the business community and professional associations are also involved in this task.

Specific activities related to the commitment to environmental concerns at the national level include the finalization and endorsement of the National Environment Action Plan, which reflects the findings and recommendations of the National Conservation Strategy for Sustainable Development, and the drafting of a national environmental policy. Participation in these activities has included government agencies, the private sector, NGOs, local communities, and academia. Sectoral activities have included the preparation of a national mining sector environmental policy and action plan and the preparation of a national water resources assessment. The next phase will involve detailed studies of river basins to be followed by a synthesis of results and the preparation of a national water resources strategy, including support for small holder irrigation.

Tanzania has committed itself to implementing Agenda 21. Some of the efforts in this direction include:

- the preparation of the National Conservation Strategy for Sustainable Development (NCSSD)
- the preparation of the National Environmental Action Plan;
- the convening of a national workshop to translate Agenda 21 into a national agenda. The workshop was held in March 1993;
- the preparation of the National Environmental Policy;
- the preparation of a comprehensive Environmental Protection Act;
- the preparation of a capacity building programme for planning for sustainable development at central and local government levels;
- review of sectoral policies;
- the signing and ratification of several global and regional conventions of relevance to the environment and sustainable development

FACT SHEET

NAME OF COUNTRY: UNITED REPUBLIC OF TANZANIA

1. Name of Key National Sustainable Development Coordination Mechanism(s)/Council(s).
The Vice President's Office

Contact point (Name, Title, Office):

Telephone:
Fax:
e-mail:
Mailing address:

2. Membership/Composition/Chairperson:

2a. List of ministries and agencies involved:
The Prime Minister's Office, the Ministry of Water, Energy and Minerals, the Ministry of Lands, Housing and Urban Development, the Ministry of Education and Culture, the Ministry of Science, Technology and Higher Education, the Ministry of Community Development, Women's Affairs and Children, the Ministry of Industry, and the Universities.

2b. Names of para-statal bodies and institutions involved, as well as participating of academic and private sector bodies:

2c. Names of non-governmental organizations involved:

3. Mandate role of above mechanism/council:
The complexity of environmental problems is such that many sectors of the government and society are involved in actions to address them. The office of the Vice President is responsible for the Environment. The office, using the division of Environment, is responsible for the development of policy options, and coordination of the broad-based environmental programmes and projects. It is also responsible for facilitating meaningful involvement of the civil society in environmental activities. In particular the office is charged with the duties and responsibilities of environmental research, environmental policy making, environmental planning, environmental monitoring, and environmental coordination of both national and international environmental issues.

The strategic functions of the Office of the Vice President form the basis for effective inter-ministerial cooperation and coordination. Effective inter-ministerial cooperation and coordination has been underscored in the national environment policy and NEAP.

4. If available, attach a diagram (organization chart) showing national coordination structure and linkages between ministries:

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AGENDA 21 CHAPTER 2: INTERNATIONAL COOPERATION TO ACCELERATE SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRIES AND RELATED DOMESTIC POLICIES (with special emphasis on TRADE)

NATIONAL PRIORITY:

STATUS REPORT:

Economic reforms - Since 1985, the government of Tanzania has implemented a number of policy reforms. The main objective of the reforms have been and continues to be the following:

- to achieve economic growth;
- to reduce dependence on external balance of payment support;
- to reduce inflation;
- to improve social services and economic infrastructure;
- to alleviate, reduce and ultimately eradicate poverty; and
- to manage the ecosystem and use natural resources sustainably.

These reforms are being implemented along side equally significant political and social reforms. The following measures have been instituted:

- introduction of a multi-party democracy;
- liberalization of most economic sectors;
- privatization of parastatals engaged in commercial production and marketing - over 400 parastatals are to be restructured or diversified, sold, leased, or made to enter joint venture arrangements;
- reform of the financial sector;
- liberalization of the foreign exchange regime.

Current efforts focus on reforms of the public sector with the objective of increasing government revenue through tax reforms and improved management of revenue collection, and reduction of the size of the civil service.

Decentralization of Government activities is being implemented with the aim of transferring authority and functions to lower levels of administration (districts), which are closer to the people and therefore will be more effective and efficient in the management of sustainable development activities.

Economic indicators

For agriculture (see chapter 14)

The major export cash crops are cotton and coffe. The manufacturing industry accounts for about 17% of the foreign exchange earnings, while the mining industry accounts for only 5%.

The foreign trade sector has recently shown some significant improvements. The trade account deficit has improved. This has been possible due to the implementation of macroeconomic and budgetary measures, including the following:

- reduction in tax remissions, in particular Investment Promotion Centre (IPC) exemptions have been modified and limited to capital goods only;
- establishment of the Tanzania Revenue Authority, which is now responsible for revenue collection and tax administration; and
- establishment of the "Inputs Revolving Fund" to encourage agricultural production.

The budgetary measures are also aimed at realizing the following broad policy objectives:

- achievement of a real GDP growth of 5 percent;
- generation of recurrent budget savings;
- reduction of the rate of inflation to below 10 percent; and
- reduction of Government indebtedness to the banking system.

The Gross Domestic Product (GDP) registered a growth rate of 3.9 percent in 1995, compared to 3.0 percent in 1994. Agriculture continues to contribute the largest share of about 55 percent, with a growth rate of about 7 percent, compared to 2 percent in 1994.

Tanzania is conscious of the possible widening of the income gap as the economy recovers and grows. This and other related issues are being addressed through consideration of the social dimensions of the structural adjustment programmes.

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Cross-Sectoral Issues

1. **Decision-Making Structure:** No information

2. **Capacity-Building/Technology Issues:** No information

3. **Major Groups:** No information

4. **Finance:** No information

5. **Regional/International Cooperation:** No information

STATISTICAL DATA/INDICATORS					

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AGENDA 21 CHAPTER 3: COMBATING POVERTY

NATIONAL PRIORITY:

STATUS REPORT:

- Focus of national strategy
- Highlight activities aimed at the poor and linkages to the environment

Poverty is linked to environment in a complex way, particularly for a natural resource-based economy. Degradation of the resources reduces the productivity of the poor who mostly rely on them and make the poor even more susceptible to extreme events (climatic and economic). Poverty makes recovery from such events even more difficult and contributes to lowering social and ecological resistance. Poverty is also a factor in accelerating environmental degradation in many parts of the country, since the poor, with shorter time horizons and usually less secure access to natural resources, are unable and often unwilling to invest in natural resource management but rather strive for existence in any way.

Poverty is a complex problem with both national and international dimensions. The eradication of poverty and hunger, equity in income distribution and human resource development remain major challenges. As Agenda 21 proposes, in order to combat poverty, sound population, health care, and education policies must be put in place.

The government has since independence sought to combat poverty, ignorance and hunger. To achieve this, various strategies were launched including state intervention to reduce economic and social inequalities in resource distribution and control. Furthermore, mass mobilization was undertaken using catch-phrases, such as:

"Freedom and Work" (*Uhuru na Kazi*) to extol the virtues of work as a basis of development and self dignity as well as a strategy to enhance employment opportunities;

"Politics is Agriculture" (*Siasa ni Kilimo)* to increase rural incomes and ensure food security and to improve small holder agriculture through better farm management practices and the use of improved technologies;

"Life is Health" (*Mtu ni Afya*) to increase mass awareness of the importance of health care and to catalyze community action towards the provision of health care services;

"Universal Primary Education" (UPE) to promote primary education and functional literacy in the adult population; and

"Modern Houses" (*Nyumba Bora za Kisasa*) to promote adequate and decent housing for all.

These efforts, while inspiring, had some shortcomings mainly because there was no coherent policy to provide direction and guidance to stakeholders.

A policy on poverty eradication is under consideration. Its overall goals, objectives and strategies are geared towards:

(i) creating an enabling environment for effective poverty eradication;
(ii) empowering the poor to participate in poverty eradication programmes;
(iii) ensuring full participation of women in poverty eradication initiatives;
(iv) providing coordination mechanisms for the implementation of poverty eradication initiatives; and
(v) promoting equality of opportunity for men and women to lead a decent and productive life.

Besides the government, NGOs, CBOs and religious organizations are playing an important role in eradicating poverty. These organizations have been particularly active in the provision of education at both primary and secondary level and health care facilities. With respect to health care, for example, about 49% of the hospitals in the country have been constructed and are managed by voluntary organizations. The contribution of the voluntary organizations in the education sector is equally significant. Donor agencies have also been active partners in the poverty eradication endeavours.

A multi-focus approach to poverty alleviation and poverty eradication is central to economic management. The need to integrate poverty concerns and development requires effective coordination and cooperation among all relevant organs of Government, the business community, civil society and people. It is in recognition of this important principle that a department to coordinate efforts to combat poverty has been created. The Poverty Alleviation Department is a division in the Office of the Vice President. Tanzania does not yet have a national definition of poverty. Indicators of poverty are yet to be established. The above notwithstanding, combating poverty is a critical element in the country's development endeavour. In order to develop poverty indicators the Government has launched a study on poverty statistics.

The country still uses conventional measures as indicators of national poverty. One such indicator is the per capita income, and its changes, a measure which relates population and gross domestic product (GDP) growth. However, this measure does not lead to the estimation of the proportion of the population which could be considered economically poor. Other indicators of national poverty include the rate of employment, dependence on external assistance in financing development, etc. According to the National Economic Survey for 1995 published in June, 1996, the per capita income was estimated to be Tshs. 5890 in 1995 at 1985 prices, having increased from Tshs. 4919 in 1985.

Employment is an important avenue of earning income among the population. Employment opportunities have been limited in the recent past due to the slow growth of the economy, and the freezing of new recruitment in the public sector. Employment opportunities in the informal sector have increased in the recent past. An analysis of the city of Dar es Salaam Informal sector Survey undertaken in 1995 indicates that this sector provides employment to about 65 percent of the city's labour force.

Table 3.1: Estimated Per Capita Income Annual Changes for the Period 1988-1995

Year	1988	1989	1990	1991	1992	1993	1994	1995
Per Capita Income Annual Change (%)		1.0	2.3	2.6	1.0	1.1	0.3	0.8
Estimated Population Growth Rate (%)	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8

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Cross-Sectoral Issues

1. **Decision-Making Structure:** (see Status Report)

2. **Capacity-Building/Technology Issues:** No information

3. **Major Groups:** (see Status Report)

4. **Finance:** No information

5. **Regional/International Cooperation:** No information

STATISTICAL DATA/INDICATORS

	1985	1990	1992	Latest 199_	
Unemployment (%)					
Population living in absolute poverty					
Public spending on social sector %					
Other data					

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AGENDA 21 CHAPTER 4: CHANGING CONSUMPTION PATTERNS

NATIONAL PRIORITY:

STATUS REPORT:

- **National policy objectives/focus**
- **National targets**

Energy sector

In the energy-sector a number of actions and programmes relevant to Agenda 21 have been initiated. They include, among others:

I. The National Energy policy

The main objectives of the policy are:

* to establish an efficient energy production, procurement, transportation, distribution, and end-use system in an environmentally sound manner through the following:
- exploitation of the abundant hydro-electric resources;
- development and utilization of natural gas resources;
- development and utilization of the coal resources;
- increased petroleum exploration activities arresting wood fuel depletion by developing more appropriate land management practices and more efficient woodfuel use technologies;
- development and utilization of forest and agricultural residue for power and cooking energy production;
- minimisation of energy price fluctuations;
- development of human resources for development of energy technologies;
- ensuring the continuity and security of energy supplies.

* strategies for implementing the policy include:
- more efficient use of energy in the transport and industry sectors;
- rehabilitation of the electric power generation, transmission and distribution infrastructure;
- rehabilitation and rationalization of petroleum refining, storage and distribution infrastructure;
- promotion of alternative energy sources;
- development and dissemination of efficient woodfuel conversion and utilization technologies;
- development and dissemination of simple and affordable kerosene stoves for rural and urban households.

II. Power sector efficiency improvements

In the power sub-sector a number of technological options have been proposed for implementation. These include: increase the efficiency of the presently installed equipment and retrofitting the thermal power plants to improve their combustion efficiencies; retiring the less efficient plants in favour of more efficient ones and institution of demand side management; institution of fuel switching, e.g. change from industrial diesel oil to natural gas where feasible; and development of renewable energy sources, such as hydro, wind, biomass and solar energy.

A survey of 20 selected industries to investigate the relationship between production and electricity costs and sensitivity of production costs to changes in electricity tariff has been implemented by the Tanzania Industrial Research Organization (TIRDO).

Walk-through audits, semi-detailed audits, full energy audits for a total of 41 industries have also been implemented by TIRDO. These activities have been sponsored by the United Nations Industrial Development Organization (UNIDO), the Tanzania Investment Bank (TIB) and the World Bank.

III. Takagas project (energy from waste)

Taka is a Swahili word for waste and Takagas is therefore gas from waste. The goal of the Takagas project is to reduce emissions of greenhouse gases (GHG) in Tanzania by substituting bioenergy (methane gas and electricity), produced from anaerobic digestion of industrial and municipal waste in the Dar es Salaam area, for fossil fuels. Additional greenhouse gas reduction will be achieved by reducing the uncontrolled release of methane from improperly disposed organic waste, and organic fertilizer will be produced. The plant will have a capacity to treat about 57 tonnes of organic waste per day, or about 3 percent of the daily waste generated in Dar es Salaam. The project combines methane emission reduction for GHG mitigation, with production of electricity, fuel for transport and fertilizer. The installed capacity of the biogas plant will be 1 MW. The project is being funded by the Global Environmental Facility (GEF) and the Danish Development Assistance (DANIDA). This project is a collaborative effort of the Ministry of Energy and Minerals, the Dar es Salaam City Council and the University of Dar es Salaam.

Cross-Sectoral Issues

1. **Decision-Making Structure:** No information
2. **Capacity-Building/Technology Issues:** No information
3. **Major Groups:** No information
4. **Finance:** (see Status Report)
5. **Regional/International Cooperation:** No information

STATISTICAL DATA/INDICATORS

	1985	1990	1994	Latest 1995	
GDP per capita (current US$)					
Real GDP growth (%)			3.0	3.9	
Annual energy consumption per capita (Kg. of oil equivalent per capita)					
Motor vehicles in use per 1000 inhabitants					
Other data					

AGENDA 21 CHAPTER 5: DEMOGRAPHIC DYNAMICS AND SUSTAINABILITY

NATIONAL PRIORITY:

STATUS REPORT: Population Growth: In 1995 the population of Tanzania was estimated to be 28.9 million. The population has more than doubled since 1967 when it was 12.3 million. Comparable figures for the 1978 and 1988 census were 17.5 million and 23.1 million, respectively. Fig. 3.1 shows the population size of Tanzania since 1948.

It must be noted that the national census is the main source of population information in Tanzania as the country does not yet have reliable records of births and deaths, nor data on migratory movements. The current population growth rate is 2.8 percent per year. There are marked differential regional rates of population growth.

Generally regional population growth rates are high, above 2.0 percent per year, with the exception of Mtwara. A number of regions have growth rates higher than 3.0 per cent per year. These include Dar es Salaam, Rukwa, Arusha, Ruvuma and Mbeya. It should be observed that with the exception of Iringa, Mara, and Coast regions, the growth rates of all other regions declined in 1978/88 when compared with the 1967/78 inter-censual period.

At the national level, population growth is mainly due to natural increase - i.e. the differences between births and deaths. The decline of the national rate of population growth is supported by findings of the Tanzania Demographic and Health Survey (1991/92) and the Tanzania Knowledge, Attitude and Practices Survey (1994), as shown in the Table 3.2

Table 3.2: Estimated Total Fertility Rates and Crude Birth Rates

	Residence											
	Total				Rural				Urban			
Year	1978	1988	1991	1994	1978	1988	1991	1994	1978	1988	1991	1994
TFR	6.9	6.5	6.3	5.6	-	-	6.6	5.9	-	-	5.1	4.4
CBR	49	47	43	37	-	-	43	37	-	-	42	37

TFR = Total Fertility Rate
CBR = Crude Birth Rate

The population of Tanzania depicts a typical young age structure, with about 46 percent of its total population below age 15; 50 percent between the ages of 15 and 64 years; and only 4.3 percent of the total population being 65 years and older. The implication of this age structure becomes even more important when the proportion of the young population (i.e. population aged 15 - 24 years) is added to the proportion of the population below age 15 years. The proportion of young people increases to about 66 percent of the total population.

Age dependency ratios indicate the estimated number of people supported by one hundred in the working age group 15 - 64 years. The dependency ratio for Tanzania is relatively high because more than 100 persons are being supported by 100 workers. The younger age group is the main contributor to the high dependency ratio in Tanzania. This has implications for the social services needs of this population, especially the provision of education and health care. Due to limited opportunities for schooling beyond primary education, provision of employment to the youth is also a major problem.

Another implication of the broad based young population structure of Tanzania is that more and more persons enter child bearing age every year, with the attendant increase of births annually and thus perpetuating the high growth rate of the population.

Population Distribution: Population distribution is the spread of the population within an area available to them for exploitation. The 28.9 million people living in Tanzania in 1995 occupied a total land of 885,987 square Kilometers.

Table 3.3 shows a relatively unevenly distributed population over the land area, with about 54 percent of the total population occupying 25 percent of the total land.

Table 3.3: Regional Cumulative Percentage of Population and Land Area Distribution and Density 1995

Region	Cumulative % population	Cumulative % land	Density
Dar	6.70	0.2	1357.5
Zanzibar	9.52	0.5	323.6
Mwanza	17.49	2.7	114.4
Kilimanjaro	22.03	4.2	96.7
Mtwara	25.49	6.1	58.6
Kagera	36.37	12.3	55.8
Tanga	30.75	9.1	55.6
Mara	40.50	14.8	53.6
Shinyanga	48.15	20.5	42.6
Donoma	53.33	25.2	35.4
Mbeya	59.82	32.0	30.4
Kigoma	63.47	36.2	27.8
Iringa	68.58	42.6	25.4
Coast	71.20	46.3	22.8
Morongo	76.64	54.3	21.7
Arusha	82.84	63.6	21.3
Singida	86.19	69.2	19.2
Tabora	90.56	77.8	16.2
Ruvuma	94.04	85.0	15.4
Rukwa	97.38	92.6	13.8
Lindi	100.00	100.0	11.2
Tanzania			31.9

Rural-urban population distribution: Historically, development has been associated with the urbanization of society. In Tanzania, for example, the proportion of the population in the rural area has been decreasing over time. Before independence, the proportion was 97%. It decreased to 95% in 1965, 85% in 1978 and 75% in 1988. It is anticipated that this proportion will decrease further by the year 2000. This population growth trend is linked to rural-to-urban migration.

Even with this growth in urbanization, Tanzania is still one of the least urbanized countries in Africa. The main features of population distribution are:

(i) sharp discontinuities in density, with a number of densely populated areas separated from each other by zones of sparse population;
(ii) the comparatively low population density in much of the interior of the country; and
(iii) in most parts of the country, rural settlements tend to consist of scattered individual homesteads rather than nuclear villages.

Population distribution and, in particular the urban and rural spread, will be an important factor in Tanzania's development beyond the year 2000.

Population growth and sustainability: The population involved in agriculture has traditionally settled in areas suitable for crop production and mixed farming. Indigenous knowledge of trees and grasses as indicator of land suitability was used. Today, rainfall and soil fertility are still decisive factors governing population distribution and density. About 10% of the country receives adequate rain (over 1000 mm per annum) and carries 60% of the population; 8% is fairly well watered and carries 18% of the population; 20% is poorly watered and carries 18% of the population; and 62% is poorly watered and carries 1% of the population. Thus about four fifths of Tanzania's population today is concentrated on only one fifth of its land.

The rapid population growth is an environmental concern because of several reasons which include, among others:
- threatening what is already a precarious balance between natural resources and people;
- shortening of fallow cycles, exhausting soil nutrients in agricultural activities;
- increasing the demand for food and services and consequently land.

Population policy: Tanzania adopted a National Population Policy (NPP) in 1992. The policy recognizes that there is no simple cause and effect relationship between population growth and economic growth, and that population growth may not be the primary obstacle to development. Nevertheless, it is appreciated that a high population growth rate aggravates the difficult economic situation and renders remedial measures more difficult. At the macro level, a rapid and high population growth rate results in increased outlays on private and public consumption, drawing resources away from savings for productive investment. The NPP spells out as its principal objective, the reinforcement of national development through exploiting available resources to improve the quality of life of the people, with special emphasis on regulating population growth rate, enhancing the quality of life, and improving the health and welfare of women and children.

The NPP underscores the following:
- the impact of population growth on natural resources and the environment;
- due to rapid population growth and the increased number of livestock there has been increased pressure on natural resources, leading to their over-utilization and degradation;
- demand on the environment is by expansion of land for agricultural purposes, to meet housing requirements and recreational amenities; and
- capacity building, advocacy and population education through information, education and communication.

Other NPP goals include:
- the promotion of a sustainable relationship between population, resources and environment; and
- the promotion of a more harmonious relationship between urban and rural development in order to achieve a spatial distribution of the population conducive to the optimal utilization of resources.

UNITED REPUBLIC OF TANZANIA

Cross-Sectoral Issues

1. **Decision-Making Structure:** No information

2. **Capacity-Building/Technology Issues:** No information

3. **Major Groups:** No information

4. **Finance:** No information

5. **Regional/International Cooperation:** No information

STATISTICAL DATA/INDICATORS

	1990	1993	Latest 199_	
Population (Thousands) mid-year estimates				
Annual rate of increase (1990-1993)				
Surface area (Km^2)				
Population density (people/Km^2)				
Other data				

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OF TANZANIA

AGENDA 21 CHAPTER 6: PROTECTING AND PROMOTING HUMAN HEALTH

NATIONAL PRIORITY:

STATUS REPORT: Development activities affect the environment in a way that often trigger or augment health problems. Chapter 6 of Agenda 21 addresses issues of protecting and promoting human health. In addition Agenda 21 contains proposals which focus on achieving primary health care needs, controlling communicable diseases, coping with urban health problems, reducing heath risks from environmental pollution and protecting vulnerable groups such as infants, women, indigenous peoples and the very poor.

The Constitution of the Republic of Tanzania was amended in 1984 to provide for the Bill of Rights. One of the provisions of the Bill of Rights is article 14 which stipulates that every person has a right to life and to the protection of his life by the society. The High Court in a landmark ruling in the case of Festo Balegele v. Dar es Salaam City Council, (Misc. Civil Case No. 90, 1991) interpreted this Article to mean that persons are entitled to a healthy environment, and held that the City's decision to cite the garbage dump near residential areas violated plaintiffs constitutional rights to a healthy environment.

One of the obligations given to governments include the building of basic health infrastructures, paying particular attention to the provision of safe water and food supplies, sanitation services, proper nutrition, health education, immunization and essential drugs. The government of Tanzania is implementing the Health Sector Reform Action Plan which aims at:

* devolution of more authority to the public by creation of District Health Boards and Hospital Boards which will be responsible for planning and administering health services at district level;
* strengthening strategies on funding mechanisms in health services through contributions from the government, the public and donors;
* monitoring the implementation of health projects and services;
* strengthening the system of acquiring medicines and technical facilities.

At the district level, the Ministry of Health in collaboration with donors is implementing a pilot project in Morogoro (R) and the Rufiji District entitled "Tanzania Essential Health Interventions Project" which has the following objectives:

* to design a better system of preparing district plans for cost-effective interventions to reduce the burden of disease in the community.
* to assess the cost of initiating various health services based on cost- benefit analysis to the public.
* to consider policies, plans and implementation so as to realize the actual needs for health services at the district level.

In addition, the Ministry of Health is implementing the various programmes to curb communicable diseases including cholera, malaria, schistomiasis and diarrhoea diseases. There are also plans to reduce HIV infection levels and implementation of family planning programmes.

AIDS seems to be a factor that is likely to affect population growth as well as increase poverty, leading to reduced environmental quality. According to recent studies its impact on slowing population growth is generally projected to be insignificant due to the current high level of fertility; however, this impact could become severe if the epidemic spreads more rapidly than is considered likely, and if mortality from other diseases were exacerbated as a result of the HIV epidemic.

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Cross-Sectoral Issues

1. **Decision-Making Structure:** (see Status Report)

2. **Capacity-Building/Technology Issues:** (see Status Report)

3. **Major Groups:** No information

4. **Finance:** (see Status Report)

5. **Regional/International Cooperation:** No information

STATISTICAL DATA/INDICATORS

	1980	1990	Latest 199_	
Life expectancy at birth Male Female				
Infant mortality (per 1000 live births)				
Maternal mortality rate (per 100000 live births)				
Access to safe drinking water (% of population)				
Access to sanitation services (% of population)				
Other data				

UNITED REPUBLIC OF TANZANIA

AGENDA 21 CHAPTER 7: PROMOTING SUSTAINABLE HUMAN SETTLEMENT DEVELOPMENT

NATIONAL PRIORITY:	
STATUS REPORT: The government has also reoriented policy reforms towards increased allocation of resources to the social sector. Basic social services including primary education, primary health care, nutrition, and rural water supply will benefit from this move. The government has also introduced cost sharing measures as a way of ensuring full participation by the beneficiaries in the sustainable provision of the services. High priorities are being accorded to the supply of water and sanitation services to rural and urban areas. However, success in this sector is hampered by the high investment, operational and maintenance costs. Urban services are still in a very poor state. There has been a rapid deterioration of the existing infrastructure and extensive erosion of the level of services available to the rapidly increasing urban population. It is the intention of the government to prepare an urban management service delivery and infrastructure investment policy aimed at creating an effective institutional and financial framework for operating a sustainable service delivery system in urban centers. Already municipalities have been given a greater voice in the management of infrastructure. In the water sector this is being done through the establishment of urban water and sanitation boards. At least six such boards are now operational.	

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Cross-Sectoral Issues

1. **Decision-Making Structure:** No information
2. **Capacity-Building/Technology Issues:** No information
3. **Major Groups:** No information
4. **Finance:** No information
5. **Regional/International Cooperation:** No information

STATISTICAL DATA/INDICATORS

	1990	1995	
Urban population in % of total population			
Annual rate of growth of urban population (%)			
Largest city population (in % of total population)			
Other data			

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AGENDA 21 CHAPTER 8: INTEGRATING ENVIRONMENT AND DEVELOPMENT IN DECISION-MAKING
(See pages vii and viii at the beginning of the profile)

NATIONAL PRIORITY:

STATUS REPORT:

Constitutional provisions

The Constitution of the Republic of Tanzania was amended in 1984 to provide for the Bill of Rights. One of the provisions of the Bill of Rights is article 14 which stipulates that every person has a right to life and to the protection of his life by the society. The High Court in a landmark ruling in the case of Festo Balegele v. Dar es Salaam City Council, (Misc. Civil Case No. 90, 1991) interpreted this Article to mean that persons are entitled to a healthy environment, and held that the City's decision to cite the garbage dump near residential areas violated plaintiffs constitutional rights to a healthy environment.

In addition, Article 9 of the Constitution requires the Government to ensure that national resources are harnessed, preserved and applied toward the common good. Although this Article is part of the non-justiceable "fundamental objective and directive principles of the state policy" provisions of the Constitution, it portrays the commitment of the Government in ensuring sustainable development.

Environmental consideration in economic planning

Until recently environmental issues were the responsibility of sectoral ministries. However, with the growing awareness of the cross cutting and complex nature of environmental issues, their importance and severity, institutional structures and strategies are changing towards cross-sectoral coordination. In line with this new thinking the government is currently reviewing all sectoral policies to ensure that they are consistent with the current macro-economic reforms and the national environmental policy. The underlying premises of the sectoral policy reviews are:

- the need to balance accelerated economic growth with more efficient and sustainable use of the environment and natural resources;
- the need to integrate environmental management into all sectors.

All economic and social sectors are implementing activities in their areas of competence giving due consideration to environmental issues and sustainable development. The following is the status and progress in some key sectors.

The mining sector policy is aimed at creating an enabling environment for investors in the sector. Specifically, the government intends to revise the legal framework related to mining in order to increase consistency and transparency. In this regard the following legislation is being revised: the Mining Act of 1979; the Income Tax Act of 1973; and the Investment Promotion Act of 1991. The Model Mineral Agreement is also being reviewed. Mineral licensing procedures are being streamlined. The divestiture of the public mining companies and re-organization of the State Mining Company (STAMICO) is also underway. The environmental impacts of the mining sector are to be addressed through the Mining Sector Environmental Action Plan. To be included in the Plan are health, safety and environmental regulations.

The agricultural sector development has been undertaken with the objective of increasing the production of food and cash crops in order to improve food security, generate foreign exchange, supply domestic industries with raw materials, and raise rural income levels to alleviate poverty. Short term policies in this sector have focused on removing price distortions and minimizing losses due to inefficiencies in marketing and in process industries, respectively. Direct involvement and control of the agricultural sector by the government has been reduced. Emphasis is being put on research and extension services.

The Government has also reoriented policy reforms towards increased allocation of resources to the social sector. Basic social services including primary education, primary health care, nutrition, and rural water supply will benefit from this move. The government has also introduced cost sharing measures as a way of ensuring full participation by the beneficiaries in the sustainable provision of the services. High priorities are being accorded to the supply of water and sanitation services to rural and urban areas. However, success in this sector is hampered by the high investment, operational and maintenance costs.

Rehabilitation of infrastructure has also been accorded high priority. The Integrated Roads Programme (IRP) has made remarkable progress in the rehabilitation of major roads in the country. The Government intends to strengthen this activity through improvement of the organizational, management, and financial arrangements for the sector. Divestiture plans are underway for the regional transport companies, and the Plant and Equipment Hire Company. Competition is being promoted through encouragement of private sector participation in the transport sector.

Urban services are still in a very poor state. There has been a rapid deterioration of the existing infrastructure and extensive erosion of the level of services available to the rapidly increasing urban population. It is the intention of the government to prepare an urban management service delivery and infrastructure investment policy aimed at creating an effective institutional and financial framework for operating a sustainable service delivery system in urban centers. Already municipalities have been given a greater voice in the management of infrastructure. In the water sector this is being done through the establishment of urban water and sanitation boards. At least six such boards are now operational.

In order to establish an efficient energy production, procurement, transportation, distribution and end-use system and in an environmentally sound manner, the Government intends to exploit the abundant hydroelectric potential and to develop other indigenous energy sources such as natural gas, coal and petroleum in collaboration with the private sector. The power sector is being restructured. Private participation in investment in the Songo Songo natural gas project is a precursor to wider private sector participation in the energy sector.

Tanzania is conscious of the possible widening of the income gap as the economy recovers and grows. This and other related issues are being addressed through consideration of the social dimensions of the structural adjustment programmes. Poverty alleviation is being addressed in the context of the national policy on poverty and related income generation programmes. The National Population Policy addresses the issue of population growth and sustainable development.

Coordination of Environmental Issues

The Vice President's Office

The Complexity of environmental problems is such that many sectors of the government and society are involved in actions to address them. The office of the Vice President is responsible for the Environment. The office, using the Division of Environment, is responsible for the development of policy options, and coordination of the broad-based environmental programmes and projects. It is also responsible for facilitating meaningful involvement of the civil society in environmental activities. In particular the office is charged with the duties and responsibilities of environmental research, environmental policy making, environmental planning, environmental monitoring, and environmental coordination of both national and international environmental issues. The strategic functions of the Office of the Vice President form the basis for the effective inter-ministerial cooperation and coordination. Effective inter-ministerial cooperation and coordination has been underscored in the National Environment Policy and NEAP.

The Vice President's office, through the Division of Environment is implementing a capacity building project. Activities under the project include: preparation of a national framework environmental legislation; preparation of environmental impact assessment guidelines; training of personnel; follow-up of activities in the implementation of international conventions; support for meetings and conferences; as well as purchase of office supplies and equipment. The project is being funded by the Norwegian Agency for Development Cooperation. (NORAD) and UNDP.

The National Environment Management Council (NEMC)

The National Environment Management Council was established by an Act of Parliament in 1983 to advise Government in the field of environment. It serves as a think-tank for the Government, undertakes environmental information generation, assembly and exchange.

A number of activities with respect to Agenda 21 have been undertaken by NEMC. These include the following:

* **Pollution prevention and control:** (see chapter 9)
* **Environmental education and public awareness** (see chapter 36)
* **Natural Resource conservation and management:** The following activities fall under this broad category: preparation of the national marine contingency plan; inventory of destructive activities to the aquatic environment; wetlands inventory and management; inventory of natural resources and environmental related projects; environmental impact assessment (EIA) reviews; and assessment of community participation in natural resource management.

Activities undertaken by sectoral ministries

Apart from the Vice President's Office and NEMC many government ministries have been undertaking activities relevant to the implementation of Agenda 21. The complexity and inter-relatedness of the environmental problems have necessitated the involvement of almost every sector in environmental protection.

The Government institutions and ministries which have been more directly involved in the implementation of Agenda 21 are the Prime Minister's Office, the Planning Commission, the Ministry of Agriculture, the Ministry of Water, Energy and Minerals, the Ministry of Lands, Housing and Urban Development, the Ministry of Education and culture, the Ministry of Science, Technology and Higher Education, the Ministry of Community Development, Women Affairs and Children, the Ministry of Industries and Trade, and the Universities.

Decentralization

Sustainable natural resource management depends on an enabling environmental law that provides a wider spectrum for different stakeholders to participate. As such it is now becoming increasingly apparent that the "centralization" of environmental management may not be the proper institutional arrangement. Most environmental problems have a bearing on where the majority of people live, whether in rural or urban areas. Local authorities, therefore, stand a better chance of managing the local environment by overseeing the planning processes, establishing local environmental policies and regulations and enforcing them. Community based natural resource management is cost effective and participatory in character. The Government, with assistance of the United States Aid for International Development (USAID), will support a five year project on Participatory Environment and Natural Resources Management which will explore the best ways of involving local stakeholders in managing the environment.

Integrating environment and development in decision making

National Environmental Policy

The National Environmental Policy provides a framework for making fundamental changes that are needed to bring environmental considerations into the mainstream of decision making in Tanzania. It also seeks to provide policy guidelines and plans and gives guidance to the determination of priority actions, for monitoring and regular review of policies, plans and programmes. It further provides for sectoral and cross-sectoral policy analysis thus exploiting synergies among sectors and interest groups.

The overall objectives of the National Environmental Policy are therefore to ensure sustainable and equitable use of resources without degrading the environment or risking health or safety; to prevent and control degradation of land, water, vegetation, and air which constitute our life support systems; to conserve and enhance our natural and man-made heritage, including the biological diversity of the unique ecosystems of Tanzania; to improve the condition and productivity of degraded areas including rural and urban settlements in order that all Tanzanians may live in safe, productive and aesthetically pleasing surroundings; to raise public awareness; to promote individual and community participation; and to promote international co-operation.

The National Environmental Policy also provides for the execution of a range of strategic functions using policy instruments such as environmental impact assessments, environmental legislation, economic instruments and environmental standards and indicators. A framework is also provided for institutional arrangements and coordination. The role of major groups such as NGOs, CBOs and private sector is underscored. Capacity building and human resource development are emphasized.

The National Environmental Action Plan

The National Environmental Policy provides a unifying set of principles and objectives for an integrated and multi-sectoral approach to address the totality of the environment. With the enunciation of the Policy, the main challenge is to ensure that all sectors and interest groups take priority actions in such a manner that their actions are mutually supportive. It is in this regard, therefore, that an action plan has been developed as a first step towards the incorporation of environmental concerns in the national development planning process. The National Environmental Action Plan (NEAP) seeks, among other things, to:

- integrate the environmental policy and the conservation strategy into the planning process;
- involve stakeholders in environmental management;
- promote environmental education and public awareness;
- promote research and technology initiatives;
- evolve and strengthen a national environmental information system;
- promote environmental impact assessments;
- guide the development of a framework environmental legislation;
- prepare a long term investment plan to address major environmental concerns.

The National Environmental Legislation

Compilation and evaluation of sectoral environmental laws were undertaken by the Division of Environment. A national workshop on the formulation of a framework environmental legislation and review of sectoral laws was held in September 1995. Workshop proceedings have been prepared, as well as a project proposal for the formulation of a framework environmental legislation and review of sectoral laws. Efforts are underway to secure funds to support the preparation process.

Legal Instruments and Mechanisms

An overview of environmental law and institutions

The country's major sources of law include: the common law, principles of equity, statutes of general application, Islamic law in some instances, customary law, international conventions to which Tanzania is a party, constitutional law, principal and subsidiary and case law.

The management of the environment in Tanzania has been undertaken on the basis of a plethora of laws and regulations. Almost the whole corpus of environmental law is statutory based. Few cases have been decided on the basis of these laws. However, the common law of torts on nuisance and negligence are applicable in Tanzania. It should be noted, however, that much of the existing environmental legislation is outdated. Furthermore, since these laws are widely scattered, their enforcement (or non-enforcement) has often led to conflicts between different government departments, thus undermining their effectiveness. Legislation aimed at regulating use and management of natural resources has evolved along sectoral lines, governing specific environmental media.

Challenges

Agenda 21, in sections 8, 38, 39 and 40, stresses the importance of enhancing the local capacities for sustainable development in developing countries. National environmental legislation and the related institutions form the nucleus in the building of capacity to deal with challenges of sustainable development. The first tangible results of NEAP have been the drafting of an environmental law and policy. In addition, and as mentioned earlier on, a number of sector policies and legislation are currently under review.

One of the challenges facing Tanzania is that of taking necessary legislative steps to ensure sustainable development. Of late, the country's environment has been heavily affected by the influx of refugees from Rwanda, Burundi and Zaire. Again, important aspects like air pollution and environmental disaster preparedness are virtually under-legislated. The existing legal framework was not molded to absorb such challenges.

Section 8 of Agenda 21 is on policy-making for sustainable development. The section recognizes that country specific laws are among the major important instruments for transforming environment and development policies into action, not only through "command and control" methods but also as a framework for economic planning and market instruments. Major constraints facing environmental management in Tanzania include the lack of capacity to enforce environmental laws and lack of working tools.

Tanzania has a number of other statutes. Although sometimes referred to as environmental laws, they are actually resource exploitation statutes. These include the Mining Act (1979), Fisheries Act (1974), Water Utilization and Control Act (1974) and the Forest Ordinance (1959). All these Acts are currently under review to reflect sustainable utilization of resources governed by them. The challenge ahead is to incorporate into these laws the requisite institutional machinery and enforcement authority including effective judicial procedures, compliance with international agreements and to ensure their periodic review. The government will also try to direct fiscal and economic policies to reflect environmental costs in the daily decision making processes.

Current efforts to revise environmental management

The Government of Tanzania has taken important strides to address environmental problems through policy, programme and the legislative framework. In March, 1993 the then Ministry of Tourism, Natural Resources and Environment held a workshop on the national programme for the implementation of Agenda 21 and a plan of action. One of the important resolutions of the workshop was that in order to implement all proposed programmes in the Agenda 21, the existing legal framework must be evaluated, and where necessary strengthen or changed.

The following programme areas were identified as requiring an integrated legal framework:

(i) promotion of sustainable human settlement development;
(ii) integrated approach to the planning and management of land resources
(iii) combating deforestation, desertification and drought
(iv) conservation of biodiversity;
(v) protection of quality and supply of fresh water resources;
(vi) environmental pollution;
(vii) protection of the atmosphere; and
(viii) promoting the role of women in sustainable and equitable development.

The Division of Environment is now working on a new comprehensive environmental legislation. Individual sectors have also taken the challenge of initiating reforms in policies and laws relating to sustainable development and environment. Examples include:

- **Marine and Coastal Areas** (see chapter 17)
- **Wildlife Utilization and Conservation:** In 1995, a comprehensive wildlife sector review was completed. A number of recommendations were given and the government is making a keen follow up. Some of the steps already taken include: the drafting of a policy on wildlife utilization and conservation, the drafting of a policy on tourist hunting and formation of a national committee on issuance of hunting blocks. In addition, the National Parks Ordinance is being reviewed with technical assistance from the Food and Agriculture Organization (FAO). (see also Chapter 15)
- **Land Management** (see chapter 10)
- **Forest Ordinance, Cap. 389** (see chapter 11)
- **Forest Ordinance Rules** (see chapter 11

Investment regulation

The bill to enact the Tanzania Investment Act, 1997 is under consideration by Parliament. The bill stipulates that one of the functions of the Investment Promotion Center (IPC) shall be that of liaising with appropriate bodies of agencies to ensure that investment projects use environmentally sound technologies and will restore, preserve and protect the environment. This important step will ensure that the IPC vets the unscrupulous investors who may want to maximize profits at the expense of the environment.

Cross-Sectoral Issues

1. **Decision-Making Structure (please also refer to the fact sheet):** (see Status Report)

2. **Capacity-Building/Technology Issues:** (see Status Report)

3. **Major Groups:** (see Status Report)

4. **Finance:** (see Status Report)

5. **Regional/International Cooperation:** (see Status Report)

UNITED REPUBLIC OF TANZANIA

AGENDA 21 CHAPTER 9: PROTECTION OF THE ATMOSPHERE

NATIONAL PRIORITY:

STATUS REPORT:

The Montreal Protocol and its Amendments

- The Montreal Protocol (1987) was acceded to by Tanzania on 16 April, 1993 (including the London Amendment of 1990 to the Protocol)
- The Vienna Convention for the Protection of the Ozone Layer was acceded to by Tanzania on 7 April, 1993.

United Nations Framework Convention on Climate Change

- UNFCCC was signed on 12 June 1992, and ratified on 1 March 1996.

In order to fulfill the obligations of the Convention, various studies have been undertaken by the Centre for Energy, Environment, Science and Technology (CEEST) on behalf of the Tanzania Government. An inventory of emissions by source and removal by sinks of greenhouse gases in the country based on 1990 data has been completed. A study on the technological and other options for the mitigation of greenhouse gases in Tanzania has also been completed. A study to assess the vulnerability and adaptation to climate change, including the impact of climate change to agriculture, grassland and livestock as well as forestry, water, coastal resources and health is being implemented. A National Action Plan on Climate Change in Tanzania is under development.

Additional comments relevant to this chapter

Pollution prevention and control: Activities in this area include: promotion of awareness to users of chemicals in Lake Zone Regions; training of NEMC staff on data base formulation and analysis on pollution levels and control; preparation of environmental standards for water and air; and industrial pollution monitoring programmes in lake regions, Morogoro and Dar es Salaam. These activities are funded by SIDA.

Cross-Sectoral Issues

1. **Decision-Making Structure:** No information

2. **Capacity-Building/Technology Issues:** No information

3. **Major Groups:** No information

4. **Finance:** No information

5. **Regional/International Cooperation:** No information

STATISTICAL DATA/INDICATORS

	1980	1990	Latest 199-	
CO_2 emissions (eq. million tons)				
SO_x "				
NO_x "				
CH_4 "				
Consumption of ozone depleting substances (Tons)				
Expenditure on air pollution abatement in US$ equivalents (million)				
Other data				

UNITED REPUBLIC OF TANZANIA

AGENDA 21 CHAPTER 10: INTEGRATED APPROACH TO THE PLANNING AND MANAGEMENT OF LAND RESOURCES

NATIONAL PRIORITY:

STATUS REPORT:

Land degradation

Land degradation is reducing the productivity of soils in many parts of Tanzania. Soil loss has been measured in Shinyanga region over a long time period. Rates in the 1970's were twice the rates of the early 1960's (105 tons/ha/year, 1960 - 1965; 224 tons/ha/year, 1970 - 1980). Measurements in Dodoma, Morogoro and Arusha regions suggest similar high rates of soil loss.

Contributing factors towards land degradation

A number of factors contribute to land degradation. These include, among others: inappropriate cultivation techniques; a growing population; growing energy requirements; over stocking; and insecure land tenure. In the densely populated highland areas, the average farm size has decreased. In some areas, stocking rates have risen well beyond the carrying capacity of the rangelands.

- **Expansion for agriculture:** This has often taken the form of shifting cultivation which is detrimental to vegetation. Traditionally, farmers in Tanzania practice shifting cultivation or "slash and burn" agriculture. Under this system a family can grow crops on the same plot of land for two to three years only and must then move on to another plot, leaving the previous one to lie follow. Due to population pressure, however, the long periods of fallow with short periods of farming have been replaced by long periods of farming with short fallow periods. This practice does not allow sufficient time for revegetation and recovery of soil fertility. As a result, large tracts of land have lost their vegetation cover and are exposed to further degradation through soil erosion, infestation by weeds, pests and diseases. This decrease in yields often makes the clearing of more virgin forest land more necessary. Shifting cultivation has also resulted in encroachment of natural forest reserves.
- **Overgrazing:** About half of the land area of Tanzania can be categorized as grazing land, but 60% of this is tsetse fly infested. Livestock is therefore concentrated in the semi-arid savanna areas of north and central Tanzania, where grasses are associated with widely scattered shrubs and stunted trees. Two fifths of the livestock population is concentrated in Arusha, Shinyanga and Mwanza regions, which account for only one fifth of the human population. In many regions the livestock population far exceeds the carrying capacity of the land. In Shinyanga, especially Meatu district, and Mbulu in Arusha region, the excess is reported to be over 200%.

Land Management

Tanzania is characterized by a very unstable land tenure system. However, in 1995, the new Land Policy was adopted. The policy addresses the challenges facing the land-based environment like wetlands, valleys, migration corridors and buffer zones. Pastoral tenure is also articulated in the Policy. The Ministry responsible for lands is working on translating this policy into legislation.

Land use

Most of human activities are land based. For sustainable and systematic utilization of land and landbased natural resources, a land policy is essential. It is in this regard therefore, that the National Land Policy was adopted in 1995. In order to guide and regulate the allocation, ownership, use, management and administration of land, land use planning is essential. The National Land Use Planning Commission has undertaken a number of initiatives which are all in accord with Agenda 21. These include, among others:

- the preparation of the Northern Zone Physical Plan, covering administrative areas of Tanga, Kilimanjaro and Arusha regions;
- the preparation of village land use plans for villages in Dodoma district;
- Urambo district land use plan; and
- Southern zone land use plan, covering Lindi, Mtwara, and Ruvuma.

The Commission has also conducted research on the development of land use planning and land tenure systems in Tanzania. The main objectives of this study were:

- review of the existing land use planning activities and recommendation of an action oriented approach to benefit land users;
- development of basic framework of land and agricultural legislation in order to iron out conflicts of land uses and ownership;
- examination of pastoral land problems and recommendation of possible solutions to pastoral land ownership and management;
- examination of environmental programmes in relation to land use planning;
- review of sociological issues in land use management and recommendation of areas of law review; and
- identification of areas for capacity building.

The study has resulted in the drafting of a national strategy for land delivery. The strategy will reduce competition on land use and stimulate sustainable land use development and natural resource utilization.

Cross-Sectoral Issues

1. **Decision-Making Structure:** (see Status Report)

2. **Capacity-Building/Technology Issues:** (see Status Report)

3. **Major Groups:** No information

4. **Finance:** No information

5. **Regional/International Cooperation:** No information

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AGENDA 21 CHAPTER 11: COMBATING DEFORESTATION

NATIONAL PRIORITY:

STATUS REPORT: Land and forest resources are the main natural endowments of Tanzania. However, is estimated that the country's forest area has declined from 44,300,000 hectares or 50% of total land area in 1938 to 33, 096,000 hectares or 43% of total land area in 1987. Currently forests are estimated to cover 33.5 million ha.

Causes of deforestation are mainly heavy pressure from agricultural expansion, livestock grazing, wildfire, over-exploitation of wood resources for various purposes, and other human activities. There are no reliable figures on deforestation in Tanzania although according to FAO estimates, it ranges from 130,000 to 500,000 ha. per annum.

The major effect of deforestation is the deterioration of the ecological system with resulting negative impacts on soil fertility, water flows and biological diversity.

In Agenda 21, land and forest resources are covered under sections 2.10, 2.11, 2.12, and in the statement of Forest Principles. Tanzania has initiated actions towards incorporating environmental concerns in forestry. These initiatives include the review of sectoral policies (forestry, agriculture, land policy etc.), adoption of the Tanzania Forestry Action Plan, the National Conservation Strategy for Sustainable Development (NCSSD), the National Environmental Action Plan and the National Environmental Policy.

Forest Policy: The first National Forest Policy was enunciated in 1953 and reviewed in 1963 to detail the manner in which the forest and tree resources of this country would be managed to meet the needs of society sustainably. The Forest policy is under review in order to reflect social, economic, cultural and political changes that have taken place since then.

The 1953 Forest Policy objective was: "to demarcate and reserve in perpetuity, for the benefit of present and future inhabitants of the country, sufficient forested land or land capable of afforestation to preserve or improve local climates and water supplies, stabilize land which is liable to deterioration, and provide a sustainable yield of forest produce of all kinds for internal use and also for export".

Over the past three decades, perspectives on the role of the forest have changed considerably. There is also pressure arising from the ever increasing demand for woodfuels, fodder, timber and forest land for other uses, especially agriculture. The challenge now is how to manage the forest resources as a national heritage on an integrated basis in order to optimize their environmental, economic, social, and cultural benefits.

Objectives of the Forest Policy: The draft national forest policy of 1994 has a broad objective of managing forest resources sustainably. More specific objectives are aimed at:

i. maintaining ecological balance which is vital for sustenance of all life forms, human, animal and plant;
ii. demarcating and reserving in perpetuity, for the benefits of present and future inhabitants of the country, sufficient forested land;
iii. managing well forest estates and all forest growth on public lands;
iv. involving local institutions, individuals and the private sector in the development and management of forests and trees;
v. promotion of research in all branches of forestry;
vi. promotion of education in all branches of forestry;

As is stressed in Agenda 21, section 2.11, it is important to ensure a rational and holistic approach to the sustainable and environmentally sound development of forests.

Forest Ordinance, Cap.389: The Forest Ordinance is the major legal instrument of the Tanzania forest policy. It deals with the creation of and declaration of forest resources. The requirements necessary for declaring an area as a forest reserve are spelled out. The forest Ordinance is not meant to contain policy means for the attainment of certain objectives. It is rather an administrative instrument which enables the establishment of reserves.

The Ministry responsible for forests has taken the following amendments to the Forest Ordinance:

i. the ordinance will be extended to cover the establishment of institutions other than state forest reserves, such as village forest reserves, controlled areas, silvipastoral areas for pastoralists, and so forth.

ii. minimum management standards for village and private forest lands will be included in the forest ordinance, with a provision that the Forest and Beekeeping Division supervises their enforcement.

iii. key areas will be reserved for biological conservation as strict nature resources.

Appropriate incentives in the form of subsidies, subsidized loans or tax reductions are considered desirable for fostering afforestation. The Ministry of Natural Resources and Tourism will take the necessary action.

Forest Ordinance Rules: Royalties and penalties in the forest rules are established by the Government in such a way that the fees are payable on non-plantation and plantation forest produce by types. These royalties are periodically adjusted. The fees neither reflect the value of forest products to the society nor the resource replacement cost. This contributes to deforestation and forest degradation. At the same time artificially low wood prices are hampering farmers to make investment in tree growing, due to low expected earnings. The Government will in the future subsidize conservation and not consumption.

Forestry and energy interaction: Domestic energy demand in Tanzania has been rising rapidly in recent years because of population growth. Tanzanian forests supply the bulk of the energy demand. Wood accounts for 90% of the total energy used in Tanzania. While the supply of fuelwood is dwindling, demand is rapidly increasing. More than 90% of the population depends on woodfuel energy.

Charcoal is used widely in urban centres with an estimated consumption of 392,000 tones per annum and charcoal burners/ producers are licensed to burn charcoal in both public woodlands and productive forest reserves. Firewood is mostly used in rural and peri-urban areas.

In 1993 fueldwood consumption was estimated at 45 million cubic meters per annum, with a per capita wood consumption of 2.0 cubic meters of roundwood per annum. The rural areas alone consumed about 43.8 million cubic meters of firewood. By the year 2000, fuelwood demand is expected to surpass 60 million cubic meters. It was also estimated that an average of 45,000 trees of 0.2 cubic meters size were cut daily for fuelwood in the 1980s. Other uses of fuelwood include: fish smoking; salt pans; tobacco caring; bricks and tile kilns; pottery, ceramics and kaolin production.

Frequent ground fires in some areas reduce the regeneration rate and the variety of woodland plants. Forest fires are rampant particularly in natural forests where monitoring is very difficult . The national capacity to fight fires is quite limited both technically and financially.

Forestry development: Forestry development in the country is centered around the implementation of the Tanzania Forestry Action Plan (TFAP). Contained in the TFAP is a forestry development programme with eight action programmes:

i. sustainable land husbandry
ii. community and farm forestry
iii. forest management
iv. bioenergy development
v. forest industries
vi. beekeeping
vii. wildlife management
viii. conservation of ecosystems and biodiversity

One of the important projects in implementing TFAP has been the Forest Resources Management Project. The objective of the project is to improve the management of the forest and woodlands by strengthening the capacities of institutions responsible for developing and implementing forest and land policies. The project is also aimed at increasing the participation of the private sector and local communities in the management of forest resources. The components of the project include, among others:

* National Reconnaissance Level Land Use and Resource Mapping;
* Tanzania Natural Resource Information Centre;

* forest resource management in Tabora, Mwanza, Singida and Shinyanga;
* improvement and monitoring of royalty collection; and
* capacity building and infrastructure support.

The number of forestry-related projects has increased significantly during TFPA implementation. There are more than 120 forestry-related projects either being implemented or under planning. However, success in the implementation of different programmes varies. Some programmes, such as land husbandry and community and farm forestry have progressed well, largely due to donor interest.

Forest research: Forest research is being carried out by the Tanzania Forestry Research Institute (TAFORI) and the Sokoine University of Agriculture (SUA). The forest research programme of TFAP is based on TAFORI's master plan. This programme is made up of the following:

i. scientific research in protected forests and woodlands (Eastern Arc, miombo woodland, lowland forests and mangroves);
ii. silviculture and ecology of non-protection forests and woodlands (Eastern Arc, semi-arid zone and miombo);
iii. agrosilvopastoral production systems and soil conservation (Eastern arc, lowland forests, semi-arid zone, miombo woodland);
iv. tree breeding (in all major zones);
v. silviculture and ecological in plantations (highlands, semi-arid zones, Lake zone);
vi. soils and nutrition (in plantations); (highland plantations, Eastern Arc, lowland forests and for community forestry in all zones);
vii. growth and yield studies (in plantations);
viii. forest protection (all zones); and
ix. timber utilization.

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Cross-Sectoral Issues

1. **Decision-Making Structure:** (see Status Report)

2. **Capacity-Building/Technology Issues:** (see Status Report)

3. **Major Groups:** No information

4. **Finance:** (see Status Report)

5. **Regional/International Cooperation:** No information

STATISTICAL DATA/INDICATORS

	1985	1990	Latest 199-	
Forest Area (Km^2)				
Protected forest area				
Roundwood production (solid volume of roundwood without bark in mill m^3)				
Deforestation rate (Km^2/annum)				
Reforestation rate (Km^2/annum)				
Other data				

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AGENDA 21 CHAPTER 12: MANAGING FRAGILE ECOSYSTEMS: COMBATING DESERTIFICATION AND DROUGHT

NATIONAL PRIORITY:

STATUS REPORT:

The International Convention to Combat Desertification in Countries Experiencing Drought and/or Desertification Particularly in Africa was signed by Tanzania on April 16, 1997.

The Convention is being implemented through a consultative and participatory process which gathers all concerned actors of civil society. The Convention is seen as a springboard for a process of improving the standards of living of the rural communities, particularly in arid and semi-arid areas of the country. The Convention also provides a focal point for coordination, planning, monitoring and evaluation of the many, sometimes conflicting and overlapping projects, related to land degradation. Tanzania is already taking initiatives to implement interim measures called under the resolution on "Urgent Action for Africa" which was adopted during the conclusion of the Convention in Paris in June 1994.

International response: Since the first UN Conference on Desertification held in Nairobi, in 1977, the issue of desertification has been on the international agenda as a world wide economic, social, and environmental problem. The United Nations Sudano Sahelian Office (UNSO) was set up to provide assistance to drought prone countries in West Africa, but later on expanded its assistance to cover 22 countries south of the Sahara and north of the Equator. Tanzania is one of these countries.

According to UNSO, about one third (about 33%) of Tanzania is affected by desertification. The most affected areas are those in the arid, semi-arid and dry sub humid areas with potential economic resources and biodiversity which are most vulnerable to land degradation. Direct anti-desertification activities have involved the establishment of a drought and desertification control unit within NEMC, and the formulation of a national plan to combat desertification.

Remedial measures: The Government has taken a number of remedies to address the problem of desertification in the affected areas by launching conservation/control projects.

National action programme to combat desertification: The drawing up of a National Action Plan (NAP) is one of the requirements in the fulfillment of the obligations of Tanzania under the United Nations Convention to Combat Desertification. In Tanzania the NAP process has been initiated and is being funded by DANIDA. A Memorandum of Understanding was signed by UNDP, UNSO and the Government in 1996.

Institutional arrangements for the implementation of the Convention have been finalized. A National Steering Committee has been established and is composed of the members from relevant government ministries and departments. The Committee is charged with providing guidance and advising the government on the implementation of NAP process.

Both a National Secretariat and a National Technical Committee for the NAP - process have been established. The Technical Committee is composed of representatives from the Government, NGOs, and the business community.

The following activities will be undertaken in the NAP process starting from 1997: inventory of key stakeholders; production and dissemination of information; awareness raising campaign; inventory of existing plans, programmes and projects relevant to desertification control; mobilisation of financial resources for the implementation of the convention; institution strengthening; capacity building; and the development of programmes relevant to the NAP process.

National Desertification/Environment Fund (ND/EF): In order to implement the Convention particularly at the grassroots level, a financial mechanism will be established. The process of establishing a National Desertification/Environment fund has been started. A National Task Force has been formed and has been charged with carrying out consultations for the establishment of the fund. The fund is intended to support community level anti-desertification and drought mitigating activities. The fund, to be established as a trust, will offer grants for the implementation of projects at grassroots level.

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Specific national programmes: The growing awareness of the problem of desertification has led to a number of new district and regional based programmes initiated through the Ministry of Tourism and Natural Resources. These projects include:

* Land Management Programme for Environment Conservation (LAMP) in Babati District;
* Kigoma and Rukwa Integrated Development Programme;
* Hifadhi Ardhi Dodoma (HADO) and Hifadhi Ardhi Shinyanga (HASHI), two soil and water conservation projects addressing forestry, land-use and livestock in an integrated fashion;
* Hifadhi Mazingira (HIMA) a regional based soil and water conservation programme in Iringa region;
* Soil Erosion Control and Agroforestry Programme (SECAP) in Lushoto, dealing with soil, land, and water conservation;
* Soil Conservation and Agroforestry Programme (SCAPA)in Arumeru, dealing with soil, and water conservation.

The problems of land degradation and desertification continue to be major threats to the environment and have been identified as priority problems in the National Environmental Policy, NCSSD, NEAP and TFAP.

Cross-Sectoral Issues

1. **Decision-Making Structure:** (see Status Report)
2. **Capacity-Building/Technology Issues:** (see Status Report)
3. **Major Groups:** No information
4. **Finance:** (see Status Report)
5. **Regional/International Cooperation:** No information

STATISTICAL DATA/INDICATORS

	1980	1990	Latest 199_	
Land affected by desertification (Km^2)				
Other data				

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AGENDA 21 CHAPTER 13: MANAGING FRAGILE ECOSYSTEMS: SUSTAINABLE MOUNTAIN DEVELOPMENT

NATIONAL PRIORITY:	
STATUS REPORT: No information	

Cross-Sectoral Issues

1. **Decision-Making Structure:** No information

2. **Capacity-Building/Technology Issues:** No information

3. **Major Groups:** No information

4. **Finance:** No information

5. **Regional/International Cooperation:** No information

STATISTICAL DATA/INDICATORS

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AGENDA 21 CHAPTER 14: PROMOTING SUSTAINABLE AGRICULTURE AND RURAL DEVELOPMENT

NATIONAL PRIORITY:

STATUS REPORT: Agriculture is the mainstay of the economy. It employs about 80% of the work force and accounts for over 50% of GDP at factor cost and over 50% of foreign exchange earnings. It is also the major source of food supply and raw material for the industrial sector. Furthermore it provides the market for industrial products. The major export cash crops are cotton and coffee.

The agricultural sector development has been undertaken with the objective of increasing the production of food and cash crops in order to improve food security, generate foreign exchange, supply domestic industries with raw materials, and raise rural income levels to alleviate poverty. Short term policies in this sector have focused on removing price distortions and minimizing losses due to inefficiencies in marketing and in process industries, respectively. Direct involvement and control of the agricultural sector by the government has been reduced. Emphasis is being put on research and extension services.

The government has had in place an agricultural policy since 1983. Emphasis has been put on increased output and efficiency of agricultural production at village level; timely delivery and efficient use of energy inputs into agriculture; increase of use of tractors and/or animal-drawn implements for farming; introduction of village-level transport and the use of small scale human or draught-animal-powered technologies; use of renewable energy resources; and introduction of improved efficiency barns for curing tobacco drying tea and smoking fish to reduce the use of woodfuel.

In its revised form (1993 revision) the policy has also underscored the promotion and adoption of environmentally friendly technology and methods through collaboration with other ministries and institutions, enhancing environmental awareness through education extension services, and undertaking further research and dissemination of sustainable agricultural practices.

The National Land Policy reinforces the objectives of the Agricultural Policy especially in the treatment of shifting cultivation which contributes to land and soil degradation. It is stipulated in the National Land Policy that shifting cultivation will be controlled through the allocation of land to peasants on a tenure basis.

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Cross-Sectoral Issues

1. **Decision-Making Structure:** No information

2. **Capacity-Building/Technology Issues:** No information

3. **Major Groups:** No information

4. **Finance:** No information

5. **Regional/International Cooperation:** No information

STATISTICAL DATA/INDICATORS

	1985	1990	Latest 199_	
Agricultural land (Km^2)				
Agricultural land as % of total land area				
Agricultural land per capita				
	1989/90	**1992/93**	**Latest 199_**	
Consumption of fertilizers per Km^2 of agricultural land as of 1990				
Other data				

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AGENDA 21 CHAPTER 15: CONSERVATION OF BIOLOGICAL DIVERSITY

NATIONAL PRIORITY:

STATUS REPORT:

* Convention on Biological Diversity was signed by Tanzania on 12 June 1992, and ratified on 1 March 1996.
* Convention on International Trade in Endangered Species of Wild Fauna and Flora was ratified by Tanzania on 29 November, 1979.
* The Regional Lusaka Agreement on cooperative enforcement operations directed at illegal trade in wild fauna and flora, adopted in 1994, was signed by Tanzania on 8 September 1994.
* Convention on the Conservation of Migratory Species of Wild Animals, adopted 1979.
* International Plant Protection Conservation, adopted in 1951.
* The Convention Concerning the Protection of the World's Cultural Heritage, adopted in 1972, was ratified by Tanzania on 20 November 1987.

Additional comments relevant to this chapter

The Convention on Biological Diversity gives an opportunity for Tanzania to contribute to the global initiatives for the conservation of biological resources and makes it eligible to benefit from technology transfer, financial assistance, scientific and research cooperation and capacity building.

In addition, Tanzania stands to benefit from other provisions relating to:

- research and training;
- public education and awareness;
- the need for impact assessments with respect to projects that may threaten genetic resources, species or habitat;
- access to and transfer of technology;
- exchange of information;
- technical and scientific cooperation; and
- financial matters.

These provisions provide avenues for the development of a technical, social and management infrastructure that is conducive to better protection of the Tanzania biological diversity and also create a basis for exchange and cooperation among country parties.

The Convention on International Trade on Endangered Species (CITES)

CITES endevours to regulate and restrict trade in endangered species, both between member parties, and between member parties and non-members. The Convention covers both flora and fauna, including captive bred (non wild) species.

The Convention mandates signatories to establish a Management Authority responsible for issuing permits, and a Scientific Authority responsible for advise to the Management Authority. Such advise might include advise as to whether export of a specie would be detrimental to the survival of the species.

Tanzania ratified the Convention on the 29th November 1979. Pursuant to the Convention, Tanzania designated the Wildlife Division of the Ministry of Tourism and Natural Resources to be the Management Authority, while the Scientific Authority is an individual scientist. Tanzania has also in the recent past conducted a thorough wildlife sector review and assessment.

Lake Victoria environmental management programme: This is a joint initiative of the three East African countries: Kenya, Uganda and Tanzania for the environmental management of Lake Victoria. The objective is to implement a five year programme for strengthening regional coordination in the management of the Lake resources, including fisheries management, control of water hyacinth, management of water quality and land use, including wetlands. Formulation of the programme was completed in December 1995. The project has secured funds from the World Bank and GEF totalling US$ 20.4 million. A secretariat is in place and implementation of the project started in March 1997.

Capacity building for environmental management and pollution abatement: The long term goal of the project is to improve the environmental condition in Mwanza and consequently in Lake Victoria through promotion of environmentally sustainable socio-economical strength and development, by preparation of a dynamic strategic development plan and investment strategy. The project will address problems of soil erosion, water pollution, solid and hazardous waste and industrial waste water. The project also aims at increasing awareness and participation of stakeholders in the minimisation and prevention of pollution. To be implemented in 1998-2000, the project is being funded by DANIDA.

Lake Tanganyika biodiversity and pollution control project: This is a five year regional project of riparian states of Burundi, Tanzania, Zaire and Zambia. The project aims to control pollution and to prevent the loss of the exceptional diversity of Lake Tanganyika. The preparation process which was approved in September 1995 has commenced. UNDP/GEF are the funding agencies and the project is expected to cost 10 million US dollars.

National biological diversity country study project: The overall objective of the project has been to gather and analyze biological and socio-economic data that would provide an information base for the development of national strategies, programmes and action plans for the conservation and sustainable use of our biological diversity. This study was undertaken between April 1995 to March 1996 while consolidation of the report was accomplished by October 1996. The study engaged local experts from Government and NGOs. The National Environment Management Council NEMC coordinated this project on behalf of the government. The study covered Tanzania mainland only.

A Strategy for the conservation of coastal biological diversity of mainland Tanzania: This study was done by CEEST under the auspices of the Division of Environment, and funded by the World Bank. The study has identified some implications of specific biodiversity objectives in relation to sectoral programmes and interests in forestry, agriculture, industry and tourism in coastal Tanzania.

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Cross-Sectoral Issues

1. **Decision-Making Structure:** (see Status Report)

2. **Capacity-Building/Technology Issues:** (see Status Report)

3. **Major Groups:** (see Status Report)

4. **Finance:** (see Status Report)

5. **Regional/International Cooperation:** (see Status Report)

STATISTICAL DATA/INDICATORS

	1992	Latest 199_	
Protected area as % of total land area			
	1990	**Latest 199_**	
Number of threatened species			
Other data			

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AGENDA 21 CHAPTER 16: ENVIRONMENTALLY SOUND MANAGEMENT OF BIOTECHNOLOGY

NATIONAL PRIORITY:	
STATUS REPORT: No information	

Cross-Sectoral Issues

1. **Decision-Making Structure:** No information

2. **Capacity-Building/Technology Issues:** No information

3. **Major Groups:** No information

4. **Financc:** No information

5. **Regional/International Cooperation:** No information

STATISTICAL DATA/INDICATORS

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AGENDA 21 CHAPTER 17: PROTECTION OF THE OCEANS, ALL KINDS OF SEAS, INCLUDING ENCLOSED AND SEMI-ENCLOSED SEAS, AND COASTAL AREAS AND THE PROTECTION, RATIONAL USE AND DEVELOPMENT OF THEIR LIVING RESOURCES

NATIONAL PRIORITY:

STATUS REPORT:

The UN Convention on the Law of the Sea was ratified by Tanzania on 30 September 1985.

Other relevant Conventions/Treaties include:
- Convention on the Continental Shelf, adopted in 1958.
- Convention on the High Seas, adopted in 1958.
- International Convention for the Protection of Pollution from Ships, adopted in 1973.
- International Convention on Oil Pollution Preparedness, Response and Cooperation, adopted in 1990.

The Regional Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region, adopted in 1985, was acceded to by Tanzania on 1 March 1996.

Nairobi Convention

The Convention for the Protection, Management and development of the Marine and Coastal Environment of the Eastern Africa Region, commonly referred to as the Nairobi Convention, was adopted on 21 June 1985, together with its two Protocols and an Action Plan. The objective of the Convention is to ensure sound environmental management of the maritime and coastal areas of the East African region. The Convention provides a framework for the protection and development of marine and coastal resources. The protocols focus on the conservation of flora and fauna and on measures for combating marine and coastal pollution.

The Convention is an initiative taken in the East African setting considering the economic and social value of the Eastern African marine and coastal environment, the unique hydrographic and ecological characteristics of the region, local shortcomings in the integration of environmental protection in national planning, and the inability of the more broad-based environmental conventions "to entirely meet the special requirements of the Eastern African region".

Tanzania stands to benefit from the Convention and its Protocols. Priority areas include: coastal management, pollution monitoring, contingency planning to combat marine pollution, coastal erosion and environmental impact assessment. Provision is made for cooperation among parties for sharing of information on the conservation and management of natural resources and exchange of expertise within the sub-region.

Marine and Coastal Areas

In 1994 the Marine Parks and Reserve Act (No. 29 of 1994) was enacted. The Act aims, inter alia, at the protection, conservation and restoration of the species and genetic diversity of living and non-living marine resources and the eco-system processes of marine and coastal areas. The new Act also marks the beginning of enactment of environmental legislation which includes community based conservation through the involvement of villagers and other local resident users in the vicinity of, or dependent on a marine park or marine reserve in all phases of the planning, development and management of that marine park or reserve, and share in the benefits of the operation of the protected area. The Mafia Marine Park is the first marine park to be established in the country.

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Cross-Sectoral Issues

1. **Decision-Making Structure:** (see Status Report)

2. **Capacity-Building/Technology Issues:** No information

3. **Major Groups:** No information

4. **Finance:** No information

5. **Regional/International Cooperation:** (see Status Report)

STATISTICAL DATA/INDICATORS

	1980	1990	Latest 199-	
Catches of marine species (metric tons)				
Population in coastal areas				
Population served by waste water treatment (% of country's total population)				
Discharges of oil into coastal waters (metric tons)				
Releases of phosphate into coastal waters (metric tons)				
Releases of nitrate into coastal waters (metric tons)				
Other data				

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AGENDA 21 CHAPTER 18: PROTECTION OF THE QUALITY AND SUPPLY OF FRESHWATER RESOURCES: APPLICATION OF INTEGRATED APPROACHES TO THE DEVELOPMENT, MANAGEMENT AND USE OF WATER RESOURCES

NATIONAL PRIORITY:

STATUS REPORT:

Water resources

Water is an indispensable resource to all living organisms. It provides life to animals and plants, and it is an important input to human development.

- **Water sources:** Ground water is a key source of water for both rural and urban areas. It is the source of water for the municipalities of Arusha, Dodoma and Mtwara. Shallow aquifers are emphasized for water supply because they are less costly. However, their vulnerability to pollution is high.

The increased pressure on surface water is due to a number of factors. Surface water levels are reported to have been decreasing because of loss of vegetation cover and changes in land use patterns, resulting from the increases in population. Rivers which used to be perennial have become intermittent. While irrigation is expected to increase, unregulated abstraction of water is already a source of concern in all major river basins. The demand for water in a number of major urban centres is increasing because the population is also increasing at a fast rate.

- **Water uses:** In urban areas the largest use of water is for the household sector. In Dar es Salaam for example, domestic consumption accounts for approximately 70 percent of total water consumption. Industry typically accounts for about 10-20 percent of total consumption. The demand for water exceeds supply in most urban centres. In rural areas water is used primarily for domestic purposes and for livestock. The total amount of irrigated land remains limited despite considerable potential, particularly within the major river basins such as the Pangani and Rufiji. Nationally approximately 150,000 ha. are under irrigation. Irrigated areas are comprised of small scale projects with predominant crops being rice and sugar cane. The development potential for irrigation is large, with almost 900,000 hectares being suitable. Over 50% of this total is in the Rufiji river basin, where water allocation conflicts are already evident. In addition, some 80,000 hectares are located in the Ruvu basin, the current source of water for Dar es Salaam, and another 85,000 hectares in the nearby Wami basin.

Water is also used for the production of electricity. Eighty percent of installed electric generation capacity relies on hydropower. The two large projects, Mtera and Kidatu in the Rufiji River basin account for most of the hydropower capacity (280MW) while four smaller projects in the Pangani basin account for approximately 70MW of capacity. Conflicting priorities for use of water in the Rufiji basin combined with effects of land degradation on sustained low flows, and low precipitation have created water shortages.

With barely 65% of urban and 43% of rural residents in Tanzania with access to potable water within 400 metres, providing safe drinking water and environmentally acceptable sanitation and sewage treatment also remains an issue of priority concern.

- **Shared waters:** Tanzania shares a number of water bodies with neighboring countries. Of these, Lake Victoria, has been identified as having a serious pollution problem. Untreated discharges of sewage from the country's second largest city of Mwanza reach the lake. In addition, large textile and tannery mills discharge toxic substances and oxygen demanding pollutants. Coffee processing, cotton processing, cotton ginneries, vegetable oil mills, cosmetics industry, soap and fish processing plants discharge oxygen demanding wastes into the lake catchment area. Lake Victoria appears to be susceptible to eutrophication due in part to the introduction of the Nile Perch. The number of small fish which controlled algae blooms has been severely reduced, as they are food for the perch. This "food web" change indicates that more extensive pollution control measures are needed if oxygen deficiencies are to be improved. Frequent fish kills following alga blooms have been reported in Uganda, Kenya and Tanzania and the invasion of water hyacinth is evident everywhere. Other sources of contamination include mercury waste coming from mining areas in the lake basin, and run-offs from the overuse of agrochemicals and fertilizer in cotton production. A joint international effort to reduce pollution loading in the lake, and better manage fishing and other activities is being supported by the World Bank and the Global Environment Fund.

- **Water for irrigation:** Irrigation is an important aspect of water use particularly because of the variability inherent in Tanzania's rainfed production systems, which creates problems of shortage of the main food crops in years of inadequate or poorly timed rainfall. Irrigation is not yet widespread, but where it is used regulation of water consumption is a problem. Small holder farmers, who account for about 80% of water abstraction for irrigation, use traditional furrows which are prone to excessive leakages, poor drainage and water logging, creating problems of shortage of the main food crops in years of inadequate or poorly timed rainfall.

Information on areas under irrigation and water abstraction from rivers and aquifers is sparse, and unreliable. It is estimated that some 150,000 hectares are under irrigation by small holder farmers, using "run of the river" techniques. Another 40,000 hectares are in large centrally managed schemes. The main crops produced in irrigated areas is rice and sugar cane. In addition, there are a few farms in the Moshi-Arusha area producing irrigated flowers and vegetables for the foreign market. All in all the area which is potentially irrigable in Tanzania is large, possibly as much as 900,000 hectares.

The Ministry of Agriculture, with assistance from FAO and UNDP has been reviewing the experience with irrigation projects, and has concluded that:

* emphasis should be on existing small holder schemes, and future development should be based on stage improvement and expansion of existing local technology, which allow the farmers to adapt at their own pace. Equal emphasis should be given to operational and extension support to farmers at existing schemes;
* projects undertaken to-date have been too sophisticated, requiring expensive structures and massive capital outlays. The funds for completing these projects have often not materialized, causing a waste of resources invested in un-used, and uncompleted schemes;
* for small holder irrigation schemes to succeed, management of water and land use should be in the hands of associations representing the interests of small scale farmers.

A ranking of potential projects has been made, and a small holder-focused irrigation rehabilitation and development programme has been proposed. In order to carry out such a programme, it is proposed that the key responsibilities for operational support and extension services be provided at the zonal level (bringing together similar regions). The Ministry of Agriculture will strengthen its capacity to coordinate irrigation activities and provide assistance at the design and construction stage. Projects will be carried out in Moshi, Morogoro, Tabora, Mbeya, Mwanza and Mtwara zones.

- **River basin management and smallholder irrigation improvement:** The objective of this project is to strengthen the national capacity to manage water resources and address water-related environmental concerns at the national level and in the Rufiji and Pangani river basins. Furthermore it is intended to improve irrigation efficiency of selected smallholder traditional irrigation schemes in the river basins. The project is financed by the International Development Association (IDA) and implemented by the Ministry of Water and the Ministry of Agriculture.

The Water Policy

The overall national objective of the water sector is to provide adequate clean and safe water to within easy reach, to satisfy other water needs and to protect water sources. Specific environmental objectives of the water policy include:

* protection of water catchment areas;
* promotion of efficient use of water;
* promotion of efficient water treatment, and waste water treatment;
* promotion of water recycling;
* institution of water charges that reflect full value of water resources;
* prevention of water pollution; and
* improved management and conservation of water bodies and wetlands.

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Cross-Sectoral Issues

1. **Decision-Making Structure:** No information

2. **Capacity-Building/Technology Issues:** No information

3. **Major Groups:** No information

4. **Finance:** (see Status Report)

5. **Regional/International Cooperation:** (see Status Report)

STATISTICAL DATA/INDICATORS

	1980	1990	Latest 199-	
Fresh water availability (total domestic/external in million m^3)				
Annual withdrawal of freshwater as % of available water				
Other data				

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AGENDA 21 CHAPTER 19: ENVIRONMENTALLY SOUND MANAGEMENT OF TOXIC CHEMICALS, INCLUDING PREVENTION OF ILLEGAL INTERNATIONAL TRAFFIC IN TOXIC AND DANGEROUS PRODUCTS

NATIONAL PRIORITY:	
STATUS REPORT: **Chemical industry** Recognizing the dangers of releasing pollutarts into the atmosphere, the chemical industry in Tanzania has embarked on identifying and reducing pollutants by adding effluent treatment and scrubbing units to existing processes. A few operators have succeeded in optimizing operations in order to reduce fugitive emissions and waste generations. An example is the introduction of membrane separation to replace mercury-based techniques in the calor-alkali industry. Some firms have been able to substitute dangerous organic chemicals and trichloroethylene with less hazardous alternatives.	

Cross-Sectoral Issues

1. **Decision-Making Structure:** No information

2. **Capacity-Building/Technology Issues:** No information

3. **Major Groups:** No information

4. **Finance:** No information

5. **Regional/International Cooperation:** No information

STATISTICAL DATA/INDICATORS

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AGENDA 21 CHAPTER 20: ENVIRONMENTALLY SOUND MANAGEMENT OF HAZARDOUS WASTES, INCLUDING PREVENTION OF ILLEGAL INTERNATIONAL TRAFFIC IN HAZARDOUS WASTES

NATIONAL PRIORITY:

STATUS REPORT:

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal

- **The Basel Convention was acceded to by Tanzania on 7 April 1993.**

Additional comments relevant to this chapter

The Bamako Convention

The Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa was adopted in 1991. Tanzania ratified the Convention on 7 April 1993. The Bamako Convention takes its cue from the Basel Convention on the control of transboundary movements of Hazardous Wastes and their Disposal (1989). In addition, the OAU had decided to formulate a legal framework that would complement the Basel Convention. The latter does not prohibit exports of hazardous wastes from industrialized countries to developing countries.

Whereas the Basel Convention explicitly excludes radioactive wastes within its scope of application, the Bamako Convention has expressly included such wastes within its regulatory ambit. Again, the Convention prohibits importation or exportation to Africa of hazardous substances banned or refused registration in the country of manufacture on account of human health or environmental concerns. Pursuant to that the Government of Tanzania banned importation of DDT into the country. The Bamako Convention also makes illegal trafficking of hazardous wastes a criminal offence and extraditable among parties. Parties also committed themselves to establish appropriate national legislation to prevent and punish illegal traffic. Tanzania has yet to enact such legislation.

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Cross-Sectoral Issues

1. **Decision-Making Structure:** No information

2. **Capacity-Building/Technology Issues:** No information

3. **Major Groups:** No information

4. **Finance:** No information

5. **Regional/International Cooperation:** No information

STATISTICAL DATA/INDICATORS

	1980	1990	Latest 199-	
Generation of hazardous waste (t)				
Import of hazardous wastes (t)				
Export of hazardous wastes (t)				
Area of land contaminated by hazardous waste (km^2)				
Expenditure on hazardous waste treatment (US$)				
Other data				

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AGENDA 21 CHAPTER 21: ENVIRONMENTALLY SOUND MANAGEMENT OF SOLID WASTES AND SEWAGE-RELATED ISSUES

NATIONAL PRIORITY:	
STATUS REPORT: No information	

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Cross-Sectoral Issues

1. **Decision-Making Structure:** No information

2. **Capacity-Building/Technology Issues:** No information

3. **Major Groups:** No information

4. **Finance:** No information

5. **Regional/International Cooperation:** No information

STATISTICAL DATA/INDICATORS

	1980	1990	Latest 199-	
Generation of industrial and municipal waste (t)				
Waste disposed(Kg/capita)				
Expenditure on waste collection and treatment (US$)				
Waste recycling rates (%)				
Municipal waste disposal (Kg/capita)				
Waste reduction rates per unit of GDP (t/year)				
Other data				

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AGENDA 21 CHAPTER 22: SAFE AND ENVIRONMENTALLY SOUND MANAGEMENT OF RADIOACTIVE WASTES

NATIONAL PRIORITY:	
STATUS REPORT: No information	

Cross-Sectoral Issues

1. **Decision-Making Structure:** No information

2. **Capacity-Building/Technology Issues:** No information

3. **Major Groups:** No information

4. **Finance:** No information

5. **Regional/International Cooperation:** No information

STATISTICAL DATA/INDICATORS

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AGENDA 21 CHAPTERS 23-32: MAJOR GROUPS

The role of major groups are also covered under the various chapters of Agenda 21. The following is a summary of main objectives outlined in Agenda 21. Please check the appropriate boxes and describe briefly any important steps or obstacles.

STATUS REPORT ON PARTICIPATION BY MAJOR GROUPS AT THE NATIONAL AND LOCAL LEVELS	
Ch. 24: GLOBAL ACTION FOR WOMEN TOWARDS SUSTAINABLE AND EQUITABLE DEVELOPMENT. The Convention on the Elimination of All Forms of Discrimination Against Women was **24.b** Increasing the proportion of women decision makers. No information **24.2.e** assessing, reviewing, revising and implementing curricula and other educational material with a view to promoting dissemination of gender-relevant knowledge. No information **24.2.f and 24.2.c** formulating and implementing policies, guidelines, strategies and plans for achievement of equality in all aspects of society including issuing a strategy by year 2000 to eliminate obstacles to full participation of women in sustainable development. See below **24.2.d** establishing mechanisms by 1995 to assess implementation and impact of development and environment policies and programmes on women. No information **Brief comments on this chapter (maximum 100 words) (please, do not exceed this page):** Agenda 21 recognizes the role of women in sustainable development. Chapter 24 deals with "Action for Women: Sustainable and Equitable Development". Governments are enjoined to implement the Nairobi Forward Looking Strategies for Women which emphasizes the need for women to participate in ecosystem management and control of environmental degradation. In Tanzania, as in many other developing countries, the social position of women makes them closer to the environment than men. Since the division of labour (mostly in rural areas) is still gender-based, women perform chores like fuel wood collection, water fetching from distant places, hand-hoe cultivation etc. Notwithstanding the importance of involving women in natural resource management, women continue to be inhibited by some traditions and by statutory provisions contained in Tanzania's laws. For example some codified customary laws prevent a woman from inheriting land in the event of the death of her husband or father. The government through the Law Reform Commission is working to amend and/or repeal such discriminatory laws. The government through the Ministry of Women, Children and Community Development is keen to enhance women's participation in development and environmental management through credit provision, encouraging the use of fuel efficient cooking stoves, training on various development issues, and other activities.	

STATUS REPORT ON PARTICIPATION BY MAJOR GROUPS AT THE NATIONAL AND LOCAL LEVELS

Ch. 25: CHILDREN AND YOUTH IN SUSTAINABLE DEVELOPMENT.

25.4 establishing processes that promote dialogue between the youth and government at all levels and mechanisms that permit youth access to information and opportunity to present their views on implementing A21.
No information

Describe their role in the national process:
25.3 reducing youth unemployment
No information

25.5 ensuring that by year 2000 more than 50% of youth -- gender balanced -- have access to appropriate secondary education or vocational training.
No information

Brief comments on this chapter (maximum 100 words) (please, do not exceed this page):

In Tanzania, youth make up a substantial part of the population and a significant part of its working population. There is a need therefore to involve them in major decisions. To this end, development plans should contain initiatives to provide the youth (and the general population) with a healthy environment, improved standards of living, education and employment opportunities.

However, Tanzania's employment trend in the formal sector depicts a downward trend falling from 12% in 1978 to 5.5% in 1995. Reasons for this fall include, among others, the fall in the Gross National Product, growth of the number of graduates, and shrinkage of the public sector. Chapter 25 of Agenda 21 urges governments to make sure that by 2000, more than 50 per cent of each country's youth should have access to secondary education or equivalent vocational training. Towards this end, the government in 1996 enacted the Vocational Education and Training Authority Act through which a statutory fund was launched for purposes of supporting vocational training.

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STATUS REPORT ON PARTICIPATION BY MAJOR GROUPS AT THE NATIONAL AND LOCAL LEVELS

Ch. 26: RECOGNIZING AND STRENGTHENING THE ROLE OF INDIGENOUS PEOPLE AND THEIR COMMUNITIES.

26.3.a establishing a process to empower indigenous people and their communities -- through policies and legal instruments: No information

26.3.b strengthening arrangements for active participation in national policies
No information

26.3.c involving indigenous people in resource management strategies and programmes at the national and local level.
No information

Brief comments on this chapter (maximum 100 words) (please, do not exceed this page):

Ch. 27: STRENGTHENING THE ROLE OF NON-GOVERNMENTAL ORGANIZATIONS: PARTNERS FOR SUSTAINABLE DEVELOPMENT.

27.5 developing mechanisms that allow NGOs to play their partnership role responsibly and effectively.

27.6 reviewing formal procedures and mechanisms to involve NGOs in decision making and implementation.

27.8 promoting and allowing NGOs to participate in the conception, establishment and evaluation of official mechanisms to review Agenda 21 implementation.

27.7 establishing a mutually productive dialogue by 1995 at the national level between NGOs and governments.

Brief comments on this chapter (maximum 100 words) (please, do not exceed this page):

Tanzania embraces a wide spectrum of NGOs ranging from social welfare NGOs, developmental NGOs, educational NGOs, women and youth NGOs and research NGOs. Most NGOs were formed after the coming into force of the Bill of Rights in 1987 which guaranteed the right to free association and freedom of speech. However, the regulatory framework for NGOs is based on the Societies Ordinance Cap. 337 of the Laws of Tanzania which was mainly meant to govern charitable organizations.

Most of the NGOs are registered as societies under the Ministry of Home Affairs or under the Registrar of Companies as companies limited by guarantee. Generally speaking the smaller NGOs are community based and are continuously affected by problems of poor leadership and lack of financial resources. Donor dependence has also affected the functioning of most NGOs. Research NGOs have affiliations with universities and academic institutions.

NGOs have been playing a very important role in managing the environment and spearheading development programmes. NGOs render technical support to community-based projects. They are conversant with community problems, needs and solutions. They also assist communities in interpreting laws and regulations. Table 8.1 lists some of the NGOs in accordance with the above classification.

Chapter 27 of Agenda 21 underscores that vital role that NGOs in participatory democracy and diverse expertise they posses in fields important to sustainable development. Although most of these NGOs are doing a good job in spearheading development projects and environmental conservation activities, their functions remain largely uncoordinated. In addition, most NGOs lack the necessary capacity to manage their activities. Their capacity needs to be built and strengthened.

Table 8.1: Selected NGOs Involved in Environmental Activities

(a) Action Oriented

NGO	Location	Activities
Tanzania Wildlife Conservation Society (TWCS)	Dar es Salaam	Awareness creation, anti-poaching, conservation activities, and general initiatives.
Malihai Clubs of Tanzania (MCT)	Arusha	Environmental education, information dissemination, and tree planting.
Lawyers' Environmental Action Team (LEAT)	Dar es Salaam	Environmental litigation, lobbying of environmental laws for enactment /amendment.
Tanzania Environmental Society (TESO)	Dar es Saalam	Environmental education and public awareness, soil conservation, afforestation, sustainable agriculture, land use, watershed management, networking, etc.
Journalists Environmental Association of Tanzania (JET)	Dar es Salaam	Dissemination of environmental news, investigation on environmental deterioration, etc.

(b) Research Oriented

NGO	Location	Activities
Centre for Energy, Environment, Science & Technology (CEEST)	Dar es Salaam	Research on energy, environmental science and technology issues, natural resource use and management,etc.
Economic & Social Research Foundation (ESRF)	Dar es Salaam	Research on economic, social and development issues.
Research on Poverty Alleviation (REPOA)	Dar es Salaam	Conducts research on the informal sector, employment trends, poverty alleviation, environment and development trends.

(c) Community Based NGOs

NGO	Location	Activities
Laramatak Development Organization	Monduli	Community based conservation, pastoral rights, etc.
Nyambimbi Economic Group	Bariadi	Afforestation, soil conservation, etc.
Tanzania Tree Planting Foundation	Handeni	Tree planting and environmental conservation.
Pollution Control Association (POCA)	Dar es Salaam	Collection of garbage, manufacturing garbage collection facilities, etc.

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STATUS REPORT ON PARTICIPATION BY MAJOR GROUPS AT THE NATIONAL AND LOCAL LEVELS

Ch. 28: LOCAL AUTHORITIES' INITIATIVES IN SUPPORT OF AGENDA 21.

28.2.d encouraging local authorities to implement and monitor programmes that aim to ensure participation of women and youth in local decision making.

Brief comments on this chapter (maximum 100 words) (please, do not exceed this page):

Participatory environmental resource management: The Participatory Environmental Resource Management (PERM) is a US$ 10 million five year project whose objective is to strengthen environmental management through encouragement of community based natural resource management (CBNRM) in Tanzania. The project will assist the government, NGOs, the private sector, and individuals to identify and implement CBNRM programmes based on indigenous knowledge, practices, and experience. Project implementation has started.

Ch. 29: STRENGTHENING THE ROLE OF WORKERS AND THEIR TRADE UNIONS.

29.2 full participation of workers in implementation and evaluation of A21.
No information

29.3 a to e (By year 2000, (a) promoting ratification of ILO conventions; (b) establishing bipartite and tripartite mechanism on safety, health and sustainable development; (c) increasing number of environmental collective agreements; (d) reducing occupational accidents and injuries; (e) increasing workers' education and training efforts.
No information

Brief comments on this chapter (maximum 100 words) (please, do not exceed this page):
Other Conventions/Treaties of relevance include:

- The Convention concerning the Protection of Workers Against Occupational Hazards in the Working Environment due to Air Pollution, Noise and Vibration, adopted in 1977, entered into force in Tanzania on May 30, 1984.
- The Convention Concerning Occupational Safety and Health, and the Working Environment, adopted in 1981.
- The Convention concerning prevention and control of Occupational Hazards caused by Carcinogenic Substances and Agents, adopted in 1974.

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STATUS REPORT ON PARTICIPATION BY MAJOR GROUPS AT THE NATIONAL AND LOCAL LEVELS

30: STRENGTHENING THE ROLE OF BUSINESS AND INDUSTRY.

30.6 increasing the efficiency of resource use, including reuse, recycling, and reduction of waste per unit of economic output.

30.18.a encouraging the concept of stewardship in management and use of natural resources by entrepreneurs.

List any actions taken in this area:

30.18.b increasing number of enterprises that subscribe to and implement sustainable development policies.

Brief comments on this chapter (maximum 100 words) (please, do not exceed this page): In the industry-sector a number of sustainable development initiatives have been initiated. These include, among others:

I. Sustainable industrial development policy

In 1996 the Government of Tanzania launched the Sustainable Industrial Development Policy (SIDP) (1996-2020) with the main mission of:

a) contributing towards the achievement of the overall national long-term development goals as enshrined in the overall national vision, and

b) enhancing a sustainable development of the industrial sector.

The main objectives of the policy are: human development; creation of employment opportunities; sustainable economic growth; environmental sustainability; and equitable development. The SIDP has underscored the role science and technology, and Research and Development (R&D) have played in the attainment of the desired goals.

There is a very weak link between the few local R&D institutions and the productive sector in the country mainly due to the fact that industrialists do not appreciate the role of R&D activities, and much R&D work is perceived as not addressing the actual needs of the productive sector. In the light of the above, the following measures will be undertaken:

a) strengthening of existing scientific and technological institutions by providing them with adequate finances, expertise, infrastructural facilities and schemes for retention of technical experts;

b) rationalization and synchronization of R&D institutions; and

c) articulation of areas for collaboration between manufacturers and local R&D network.

Since the substitution of deleterious technologies by environmentally friendly technologies involves huge capital investments, most operators in industry have opted for add-on technologies and optimizing existing processes.

II. Chemical industry (see chapter 19)

III. Cleaner Production Center of Tanzania (see chapter 34)

Strengthening the role of business

A national partnership is required if the goal of sustainable development is to be achieved. It is in recognition of this that promotion of responsible entrepreneurship was underscored in the national plan for Agenda 21. One of the key stakeholders to contribute to responsible entrepreneurship is the business community.

The Tanzania Chamber of Commerce, Industry and Agriculture (TCCIA) has formed a committee on natural resources and environment with the main objective of raising the awareness of the business community on environmental issues so as to integrate environmental responsibility in company policies. The government will work with the business community in the drafting of national procedures for Environmental Impact Assessment, the evolution of national environmental standards, and in the implementation of international conventions, protocols, and other agreements to which Tanzania is a party.

The Government has also appointed a Business Sector Advisory Committee on Economic Empowerment and Environmental Management. The Committee is made up of several businessmen. Some of the main tasks of the committee are:

- to advise the government on policies on poverty alleviation and environmental management; and
- to advise the government on the enabling environment necessary for the business community to participate effectively in economic empowerment and environmental management.

STATUS REPORT ON PARTICIPATION BY MAJOR GROUPS AT THE NATIONAL AND LOCAL LEVELS

Ch. 31: SCIENTIFIC AND TECHNOLOGICAL COMMUNITY.

31.3.b improving exchange of knowledge and concerns between S&T community and the general public.
Scientific community has already established ways in which to address the general public and deal with sustainable development.
(see Chapters 34 and 35)

31.9 developing, improving and promoting international acceptance of codes of practice and guidelines related to science and technology and its role in reconciling environment and development.
No information

Brief comments on this chapter not already described in chapter 35 (maximum 100 words) (please, do not exceed this page):

Ch. 32: STRENGTHENING THE ROLE OF FARMERS.

32.5.c promoting and encouraging sustainable farming practices and technologies.
No information

32.5.e developing a policy framework that provides incentives and motivation among farmers for sustainable and efficient farming practices.
No information

32.5.f enhancing participation of organizations of farmers in design and implementation of sustainable development policies.
No information

Brief comments on this chapter (maximum 100 words) (please, do not exceed this page):

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AGENDA 21 CHAPTER 33: FINANCIAL RESOURCES AND MECHANISMS

Financial resources and mechanisms are also covered under each sectoral chapter of Agenda 21 where relevant. This summary highlights broader national financial policies, domestic and external (including ODA)

NATIONAL PRIORITY:	
STATUS REPORT: No information	
CHANGES IN NATIONAL BUDGET TO ADDRESS SUSTAINABLE DEVELOPMENT: No information	
NEW ECONOMIC INSTRUMENTS: No information	
ELIMINATION OF ENVIRONMENTALLY UNFRIENDLY SUBSIDIES:	

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ODA policy issues
No information

STATISTICAL DATA/INDICATORS						
	1992	1993	1994	1995	1996	
ODA funding provided or received (Total US$million)						
	Average for 92-93		Average for 94-96			
Net flow of external capital from all sources as % of GDP						
Other data						

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AGENDA 21 CHAPTER 34: TRANSFER OF ENVIRONMENTALLY SOUND TECHNOLOGY, COOPERATION AND CAPACITY-BUILDING

Transfer of environmentally sound technology, cooperation and capacity-building is also covered under each sectoral chapter of Agenda 21 where relevant. This summary highlights broader national policies and actions relating to chapter 34.

NATIONAL PRIORITY:

Role of technology in sustainable development: The greatest challenge facing all nations is still one of achieving sustainable development. Development entails improvement in welfare. In this regard, technology plays a very crucial role. In Tanzania almost all modern technology has to be imported. In the process, possibilities exist for importing environmentally 'unfriendly' technologies. Industry is the sector which can be adversely affected because it depends on and utilizes imported technology.

The agro-industries, which include the sugar, sisal, vegetable oil/fat refineries, dairies, breweries, cotton ginneries, distilleries, coffee processing factories and tanneries, use technologies which can cause environmental problems in the form of pollution.

Heavy-industries include: Aluminium Africa (ALAF); the Southern Paper Mills (SPM); the Tanzanian and Italian Petrolaum Refinery Company (TIPER); and the three cement factories (Dar es Salaam, Tanga and Mbeya). Except for SPM, all the other industries are located in urban areas. Their environmental effects, therefore, are bound to be even more apparent.

The underlying causes of industrial pollution in Tanzania include:

(i) use of inappropriate and harmful technologies;
(ii) lack of awareness on cleaner production technologies;
(iii) lack of investment capability in acquiring and diffusing newer and cleaner technologies;
(iv) lack of capability to introduce minor changes to the existing technologies; and
(v) lack of a maintenance culture.

See also Chapter 4 for information on technologies in the power sector.

STATUS REPORT ON LINKS BETWEEN NATIONAL, REGIONAL AND INTERNATIONAL INFORMATION NETWORKS/SYSTEMS: No information

MEANS OF IMPLEMENTATION: No information

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• **Describe any work being undertaken at the national or local level regarding efforts to promote clean production processes and/or the concepts of eco-efficiency. These processes may include training, preferential financial arrangements, information dissemination and changes in legal or regulatory frameworks.**

Cleaner Production Centre of Tanzania: The Cleaner Production Centre of Tanzania (CPCT), established in October 1995, is part of the world-wide UNEP/UNIDO National Cleaner Production Centres (NCPCs) project. UNIDO and UNEP have joined forces to help promote cleaner production in developing countries whose economy is in transition over a period of five years.

The main objective of the Centre is to facilitate the transfer of technical information, know-how and cleaner technology from developed and developing countries to industrial enterprises and environmental management agencies in Tanzania, in order that they might incorporate cleaner production techniques and technologies in their industrial pollution reduction programmes.

The Centre, hosted by TIRDO, is semi-autonomous within TIRDO and is managed by experienced national professionals. The Centre, under the Director, is governed by an Advisory Board comprising members from the Government, industry, academia, R&D institutions, NGOs and TIRDO. The Advisory Board guides the Centre in the preparation of its strategic and annual work plans, oversees the programme accomplishments and financial expenditures and gives guidance in policy and advisory dialogue with the Government and industry.

The Centre serves a coordinating and catalytic role for cleaner production activities in the country through four major activities:

(i) collection and dissemination of information of cleaner production to its stakeholders which include industry, government agencies, NGOs, R&D institutions and academia;
(ii) supporting demonstration in industry on cleaner production techniques and technologies;
(iii) training of personnel industry and government officials on this new area of environmental management;
(iv) advising the policy makers on the promotion of cleaner production.

• **Provide information on the adoption of environmental management systems. National reaction to environmental management system standards such as the ISO 14000 Series and others. Please note efforts made at the national level to promote their adoption and the creation of certification infrastructure in order to facilitate access to these standards to local industry.**

No information

• **List and describe programs or work under way to facilitate the transfer of ESTs to small and medium sized enterprises. Please note efforts to facilitate access to financial resources and other transfer strategies.**

No information

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AGENDA 21 CHAPTER 35: SCIENCE FOR SUSTAINABLE DEVELOPMENT

NATIONAL PRIORITY:

STATUS REPORT ON NATIONAL SCIENTIFIC KNOWLEDGE, RESEARCH NEEDS AND PRIORITIES:

STEPS TAKEN TO ENHANCE SCIENTIFIC UNDERSTANDING, IMPROVE LONG TERM SCIENTIFIC ASSESSMENT, BUILDING OF CAPACITY AND CAPABILITY:

Recognizing the importance of science and its potential impact on sustainable development, the government of Tanzania has put in place a Higher Education Policy to provide the direction and guidance to stakeholders and service providers. The policy has placed emphasis on the teaching of basic sciences and the development of corresponding skills.

With regard to environmental sciences the policy singles out the following subjects for inclusion in the national curriculum:

- the study and prediction of climatic and global change as a result of human activity on the environment;
- environmental pollution including water and air pollution with the disposal of toxic and radioactive wastes;
- disaster management;
- energy conservation;
- environmental conservation and enrichment;
- the effects of chemicals, drugs, pharmaceutical, fertilizers etc. on the environment; and biodiversity and genetic engineering.

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STATISTICAL DATA/INDICATORS			
		Year	
Number of scientists, engineers and technicians engaged in research and experimental development	#	19--	
Total expenditure for research and experimental development (US$eq.)	$	19--	
Other data			

AGENDA 21 CHAPTER 36: PROMOTING EDUCATION, PUBLIC AWARENESS AND TRAINING

NATIONAL PRIORITY:

STATUS REPORT: Human resource development (HRD) refers to both physical and mental well-being. It involves developing the physical and mental faculties of people so that they are better able to control and skillfully manage the different aspects of life and environment.

Human resource development is fundamental in building a strong, resilient and competitive economy. Tanzania's history since independence shows that it pursued policies favorable to human resource development. These include:
- articulated determination to eradicate poverty and illiteracy;
- universal primary education (UPE);
- introduction of the philosophy of education for self reliance; and
- diversification of secondary education, interfacing work with education as well as expansion of secondary schools and tertiary and higher education institutions.

However, there are indications that dividends from these policies have dwindled. There has been persistant poverty, illiteracy, underemployment and unemployment leading to decline in standards of living. Specifically, the following clearly features:
- investment in human resources has seriously declined in the past decade or so;
- government budget allocation to social services has fallen far short of the requirements. Health and education have been the major casualties; and
- the UPE rate of primary school enrollment which in 1978 peaked at 93% of all eligible children could not be sustained. Current figures indicate that the rate has fallen to 50-60% of eligible children with striking regional variations.

In secondary education Tanzania is deemed to have one of the lowest enrollment rates in the world. This in spite of the fact that: (a) societal demand for secondary education is high, and (b) the percentage of primary school leavers entering secondary schools has increased from 4.8% in 1981 to 13.3% in 1993. Private secondary schools have of course mushroomed, and the government has had to liberalize the provision and financing of secondary education.

However, the overall enrollment ratio of boys and girls in secondary school is still low by even sub-Saharan standards. In 1993, female enrollment accounted for 44% of total form 1-4 enrollment but only 29% of all form 5-6 level. This gender imbalance gets worse at the tertiary and higher levels of education and training. This raises a serious concern on the development of our human resource.

As we look forward to the dynamics of the 21st century and plan to become a high middle income country by year 2025 the need to expand investment in human resources is apparent. The share of the government's budgetary allocation to the provision of basic social services will be increased from the present 15%. The private sector will also be encouraged to invest in human resource development.

Table 2.4: Comparison of Student Enrollment in Form I and V Compared to Std VII Leavers

Year	Students in std. VII (1)	Students in form I (2)	Students in form V (3)	(3) as % of (1)
1990	313,140	47,227	5,258	1.7
1991	407,716	48,309	5,568	1.4
1992	371,358	44,896	6,154	1.7
1993	403,679	48,496	6,484	1.6
1994	400,066	52,819	6,752	1.7
1995	53,698	6,875		1.6
Source: Ministry of Education				

a) **Reorientation of education towards sustainable development**
b) **Increasing public awareness**
c) **Promoting training**

Activities undertaken include environmental research, environmental education and documentation. In order to promote environmental education in the school system in Tanzania, NEMC has been involved in a number of activities, namely: convening workshops for teachers and trainers; workshops to raise awareness; production of teaching/learning materials as well as hand-outs for teachers and students in primary and secondary schools; and monitoring the environment in schools and teacher training institutions.

ROLE OF MAJOR GROUPS: No information

FINANCING AND COST EVALUATION OF THE LABOUR ACTIVITIES: No information

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STATISTICAL DATA/INDICATORS				
	1980	1990	Latest 199-	
Adult literacy rate (%) Male				
Adult literacy rate (%) Female				
% of primary school children reaching grade 5 (1986-97)				
Mean number of years of schooling				
% of GNP spent on education				
Females per 100 males in secondary school				
Women per 100 men in the labour force				
Other data				

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AGENDA 21 CHAPTER 37: NATIONAL MECHANISMS AND INTERNATIONAL COOPERATION FOR CAPACITY-BUILDING IN DEVELOPING COUNTRIES

National capacity building is also covered under sectoral chapters.
Donors: You may wish to describe here how Agenda 21 has influenced your ODA policies in this area.
Developing countries: You may wish to describe any new national mechanisms for capacity building - and any changes in technical cooperation.

NATIONAL PRIORITY:

STATUS REPORT ON NATIONAL ENDOGENOUS CAPACITY BUILDING:

Capacity building
A number of interventions have been taken by the government in the field of environmental law often with support of the donors. Some major interventions include:

- UNDP/UNEP Joint Project on Environmental Law and Institutions in Africa- the project aims at the review and harmonisation of legislation relating to Forestry, Wildlife, Environmental Impact Assessment, Management of Lake Victoria, Management of Hazardous Wastes and the formulation of environmental standards. The project is being implemented at the sub-regional level involving the three East African states of Kenya, Uganda and Tanzania.

- Inter-regional Water Law and Policy Advisory Programme involving four countries, namely, Tanzania, Sri Lanka, Niger and Uganda funded by the Netherlands Government.

- Participatory Environment and Natural Resources Management (PERM) , a project funded by USAID aimed at strengthening local capacities in managing the environment.

- Review of the National Parks Legislation funded by the Food and Agricultural Organization of the UN.
- Review of the Land Legislation funded by the Overseas Development Organization of the UK.

The Government will ensure that these initiatives, which are mainly supported by donor agencies, are sustainable by implementing them using local capacities and expertise.

(see also chapter 8)

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AGENDA 21 CHAPTER 38: INTERNATIONAL INSTITUTIONAL ARRANGEMENTS

Ch. 38: Brief summary of any particular UN System response affecting this country/state:

(see chapter 37)

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AGENDA 21 CHAPTER 39: INTERNATIONAL LEGAL INSTRUMENTS AND MECHANISMS

Ch. 39: International Legal Instruments are covered under the relevant sectoral chapters. This is a listing of major agreements/conventions (not already covered) entered into and relevant to Agenda 21:

* Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxic Weapons and on their Destruction, adopted in 1971.

* Convention on the Prohibition of Military or any other hostile use of Environmental modification techniques, adopted in 1977.

* International Tropical Timber Agreement, adopted in 1983.

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AGENDA 21 CHAPTER 40: INFORMATION FOR DECISION-MAKING

This chapter is also covered under sectoral and other chapters of this profile. The matrix below gives an overview of how national authorities rate the available information for decision making.

Rating of available data and information suitable for decision-making

Agenda 21 Chapters		Very good	Good	Some good data but many gaps	Poor	Remarks
2.	International cooperation and trade					
3.	Combating poverty					
4.	Changing consumption patterns					
5.	Demographic dynamics and sustainability					
6.	Human health					
7.	Human settlements					
8.	Integrating E & D in decision-making					
9.	Protection of the atmosphere					
10.	Integrated planning and management of land resources					
11.	Combating deforestation					
12.	Combating desertification and drought					
13.	Sustainable mountain development					
14.	Sustainable agriculture and rural development					
15.	Conservation of biological diversity					
16.	Biotechnology					
17.	Oceans, seas, coastal areas and their living resources					
18.	Freshwater resources					
19.	Toxic chemicals					
20.	Hazardous wastes					
21.	Solid wastes					
22.	Radioactive wastes					
24.	Women in sustainable development					
25.	Children and youth					
26.	Indigenous people					
27.	Non-governmental organizations					
28.	Local authorities					
29.	Workers and trade unions					
30.	Business and industry					
31.	Scientific and technological community					
32.	Farmers					
33.	Financial resources and mechanisms					
34.	Technology, cooperation and capacity-building					
35.	Science for sustainable development					
36.	Education, public awareness and training					
37.	International cooperation for capacity-building					
38.	International institutional arrangements					
39.	International legal instruments					
40.	Information for decision-making					

Additional Comments

Data and information

Tanzania, like many other developing countries, has a large amount of data on natural resources and environment. However, most of the data are scattered and exist in different formats. This makes it difficult to compare, extrapolate or up-date information. This is a serious draw-back for proper environmental planning and/or monitoring. Moreover, there has been little or no coordination among the various agencies working in the same area and this has resulted in duplication of data collection and therefore a waste of resources.

It is in the light of these problems that Tanzania has decided to establish specialized information centres to address sector specific and general needs. The Tanzania Natural Resources Information Centre (TANRIC) with the mandate to collect and manage natural resources and environmental data, was established in 1994. TANRIC is part of the Institute of Resource Assessment (IRA) of the University of Dar es Salaam. The Centre was established with funding from the World Bank as a component of the Forest Resource Management Project. The project is being implemented by the University of Dar es Salaam in collaboration with the Ministry of Tourism and Natural Resources and the Soil Survey and Land Research Centre of Cranifield University in the UK.

TANRIC is made up of the following components: a computerized information system (TANRIS) comprising of a data base on information on organizations working in the environment and natural resources, a bibliography, a population module, an expertise profile data base, meteorology data base, and a GIS catalogue; a reference library; and a GIS unit.

Other nodes of an 'information system' on environment and sustainable development include a biodiversity reference centre at the University of Dar es Salaam library, the centre for information on agriculture at the Sokoine University of Agriculture, the environment information centre at NEMC and the Tanzania Commission for Science and Technology.

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STATISTICAL DATA/INDICATORS				
	1980	1993	Latest 199-	
Number of telephones in use per 100 inhabitants				
Other data				